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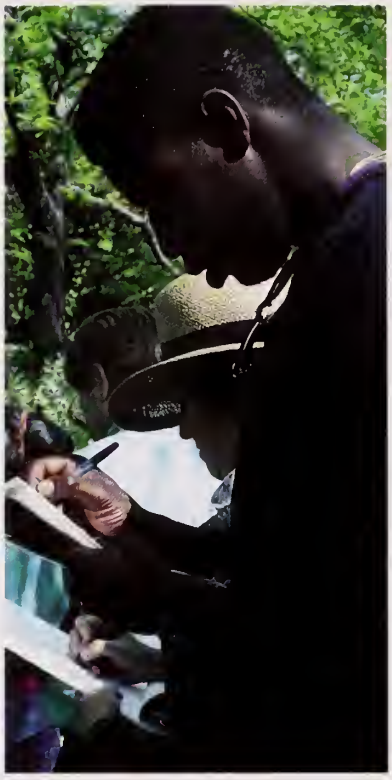
GREEN SCENE

THE PENNSYLVANIA HORTICULTURAL SOCIETY • *Sept./Oct. 1994 $2.00*



This silver garden began with a gift of a blue spruce.

(See page 22.)



11.



19.



30.

Front Cover: Slender leaves of ribbon grass and bulbous oat grass are separated by round, mouse-eared leaves of trailing helichrysum and tiny leaf silver santolina. Lamb's ears in background add still another shape and texture.

Front cover: photo by Walter Chandoha

Grow with us.

in this issue

3. Networks That Connect Us
Jean Byrne

4. Dry Walls & Perennials: A Heavenly Combination. Part I
Kath Duckett

7. Dry Walls & Perennials: How to Build Dry Stone Retaining Walls . . . and Plant Them with Perennials. Part II
Kath Duckett

11. Back to School for Horticulture: Adult Education Enriches Students' Lives and Offers Possibilities for Life Changes
Liz Ball

16. Herb Shortcuts: Easy Ways to Save Favorite Herbs for Winter Cooking
Anne S. Cunningham

19. Choose Shrubs for Fall Color in the Mixed Border
Richard L. Bitner

22. Silver Shines in the Garden
Walter Chandoha

25. The Power of One
Kathleen A. Mills

27. Garden Art: Sculpture Created from Recycled Metal
Judith Simpson

30. Site Design after the Fact
Linda Corson

33. Letter to the Editor

33. Plantfinder

33. An Invitation to Plant Societies

34. Classified Advertisements

CORRECTION:

We regret the photo credit alongside the brilliant yellow sugar maple on page 34 of the July 1994 *Green Scene* was incorrect; Gary Smith took that photograph, and a nice job he did too.

The Editor

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Networks That Connect Us

by Jean Byrne

The concept of networking has created a cottage industry among organizational psychologists — yet people united by a common interest, say horticulture, writing or photography, have an intuitive, even passionate understanding of the necessity and value of networks when they bond to pursue their interests.

In late June, about 225 people, members of the Pennsylvania Horticultural Society's Flower Show family, gathered at Flower Show chair Diane Allen's house to relax and celebrate the remarkable Show's success this year. They were only a small percentage of the people who gather together throughout the year to put on the largest, most beautiful indoor Flower Show in the world every March. If you count the exhibitors, volunteers, sponsors, Market Place exhibitors, staff, we number well over 3,000.

On each staff person's desk is a list of Pennsylvania Horticultural Society Committee members, who number 353; this number in no way reflects the true number of volunteers who show up through the year to help achieve the Society's mission.

I was mindful of our extraordinary network as I worked on this issue. Kath Duckett, who has written the lead story, has written for us before; in 1989 she wrote about her beautiful self-seeding perennial borders in *Green Scene.* In 1990 her condo landscape story in *Fine Gardening* launched her nationally. When she teaches at the Society about walls and perennials her courses are jam-packed.

Anne Cunningham, who wrote the story about saving herbs for winter use, may be seen working at the Flower Show set ups in the horticultural section as well as at the Harvest Show. Her writings also have been published nationally.

Anne chairs the Publications Committee, and Walter Chandoha, who wrote the story about his silver garden in northwestern New Jersey, also serves on that Committee as well. Walt comes to the Flower Show every March to photograph that Show in brilliant, living color for publicity all over the country and in our own Flower Show *Program.*

Richard Bitner, who writes in this issue about fall color in the mixed border, also wrote the *Green Scene* story that appeared last November about the effect books have had on gardeners; that story drew a large, enthusiastic response from our readers. Bitner, a physician, is a dedicated horticulturist and figures in Liz Ball's story on page 11 about the courses given at Longwood Gardens and the Arboretum of the Barnes foundation. Although after 12 years, Richard Bitner stepped down as Preserved Products chair at the end of last year's Harvest Show to add a teaching assistantship at Longwood Gardens to his avocational responsibilities, we look forward to seeing his continued exhibits at our Harvest Show.

Well, you get the point. If we drew lines connecting between people, tasks, associations, we'd surely have a very dense, tangled and highly energized web of networks.

Which brings me to our new logo that you may have noticed on the front of *Green Scene* this month. That logo, a tree with the date 1827, is symbolic of The Pennsylvania Horticultural Society's strength, its outreach, accessibility and ability to inspire people, its continued growth and its link to history and horticulture.

We're proud to include the logo on our cover and hope its symbolic message and invitation to belong and participate will inspire you, our readers, to consider sharing your wonderful stories with us as we launch our 23rd Volume with this issue.

We want to hear from you; let us know if you want to write for us or if there's a story you're just dying to read. Write, or call me at 215-625-8254; Fax: 215-625-9392; E mail: JEVANS@HSLC.ORG

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DRY WALLS & PERENNIALS:

a heavenly combination

PART I

by Kath Duckett

Necessity forced me into dry stone wall construction.

The old plastered stone farmhouse we purchased 19 years ago sits on a hillside. While its three front doors faced directly onto the nearby road, the land in the back met the house at windowsill level.

To create a back entrance we removed tons of soil and were left with the problem of retaining the encroaching hillside. I have never been fond of landscape or railroad ties. Their symmetry offends me; I prefer curves and a more rustic feeling. That left stone as the natural choice. A stone retaining wall would also tie in with the old fieldstone wall that transverses the back of our property. We laid out lines where we thought the wall should go.

Not sure of how to proceed, my husband Alex and I began by gathering stone from the edges of surrounding farm fields. The area where we live seems to grow stone, since loosening the soil brings a new crop to the surface each year. No doubt this is why the early farmers built so many stone homes, barns and miles of walls to edge their fields. At first we chose only the flattest near-perfect stones, which quickly disappeared into the wall necessitating a second and then a third trip. Soon we were using every stone we could get our hands on. The hero of the day was whoever brought six stones from the roadside on their way home from work. Even misshapen or smaller stone could be used as backfill. One day we spotted a large pile of stones on a streambank, which required that we go from door to door until we received permission from the owner to haul them away; three carloads, a real treasure.

The wall just seemed to eat stone. We worked on it every free moment for six months. At the time I was pregnant with our daughter and became concerned enough to ask the doctor how much exercise I was allowed. Hearing I could continue with whatever I was used to doing I kept on building though it became increasingly awkward since we were nearing the top of the wall. Stones had to go up, out and over before they were placed.

Eventually the wall was completed ranging from two feet high at each side where it joined the house to three feet at the front edge of the hillside, creating a sunken patio approximately 20 by 25 feet. We saved the biggest stones for steps on each side to reach the level of the lawn and rolled them into place with logs. The far right corner of the wall curved inward so an old cherry tree could remain undisturbed. Alas the tree did not survive, but I still like the curve. The base of the patio was completed by spreading 4 to 6 inches of sand and tightly laying large flat stones into it. At that point we gave up scavenging and ordered six tons of stone from a local quarry. It felt as though we were laying a large jigsaw puzzle, and I began to imagine that each stone had a correct place. Alex's areas show his obvious preference for larger pieces.

The area where we live seems to grow stone, since loosening the soil brings a new crop to the surface each year. No doubt this is why the early farmers built so many stone homes, barns and miles of walls to edge their fields.

Learning from mistakes

We used about 15 tons of stone in our wall and patio and made every conceivable mistake. We did not trench out but laid the base directly on the earth, nor did we always use the biggest stones for the base. We used the smallest stone as backfill but neglected to add gravel to make it tight. And somewhere around six inches from the top we decided it would be a great idea to start using mortar. At least we laid the majority of stones with overlapping joints and made sure they were level and did not tip back and forth. Still last year some omnious bulges forced us to tear off the top few layers, regrade and construct a second low wall higher up the hillside to take the pressure off the original wall. It's a joy to compare the two walls and to recognize what an improvement in technique 17 years of experience can make. By now we had learned to partially bury the base, use gravel as backfill and slightly taper each layer back into the soil so the wall could withstand pressure without moving forward.

After completing the patio we went on to rebuild all the derelict walls on our property, then we started on new ones. We bisected the backyard about a third of the way up with a low retaining wall about 60 feet long and planted it with ground covering and low perennials. Parallel to this we built another wall to retain Alex's daylily bed and then extended both ends of the original wall at the back of the property.

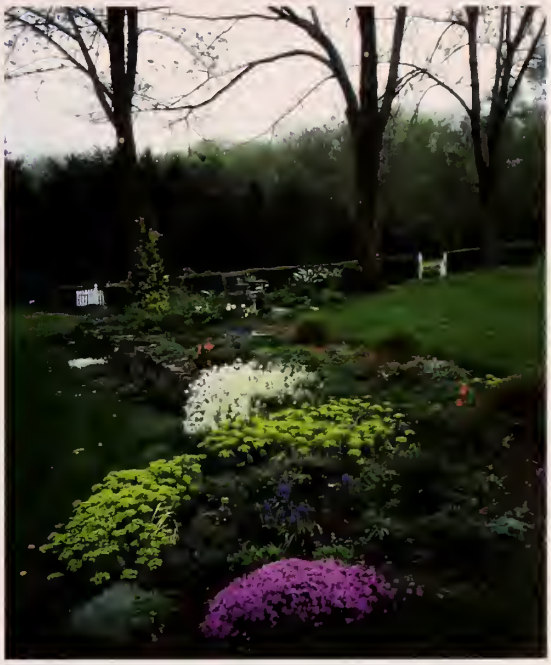
At this time I was already involved in my business designing and installing perennial gardens. Since I love perennials and stone equally, combining them is my idea of gardening heaven. Middle Bucks County is certainly the perfect place for this. There are three active quarries located within five miles of my home and many more within a 20-mile radius. Almost everyone in this area has stone beneath their land, the only exception being those fronting the Delaware River where years of erosion have deposited soil from upstream. The stone is usually some form of shale in red, brown or grey tones. Sometimes it is compacted by nature with minerals to form a harder version called argilite, which is ordinarily flat enough to be perfect for dry walls. If it has been blasted at a quarry and hand split the resulting rectangles can create a wall that is uniform and quite formal in appearance. Mother Nature is not quite so exacting and the stone collected from fields and hedgerows often have a bit of a belly, so overlapping them creates a scalloped effect. Their weathered look is much more rustic and natural.

It is often possible to find enough stone on a property to construct a low dry wall. If the land was farmed it may have dilapidated hedgerows or piles of stone pulled to the sides of fields over the years. Many longtime gardeners accumulate enough stone just in the process of planting. If you order stone from quarries or suppliers the range of colors and types to choose from is much broader. There is a yellow and grey sandstone native to the lower end of the county, or stone gathered from the mountains and stream beds as far away as New York or Kentucky. This stone usually

photos by Kath Duckett







Top: Our farmhouse had three front doors facing directly onto the road but in the back the hillside met the house at windowsill level. To create a back entrance we dug out tons of topsoil and built a dry wall and sunken stone patio. We made every conceivable mistake in the construction. **Bottom left**: Last year ominous bulges in the retaining wall forced us to tear off the top few layers, regrade and construct a second low wall higher up to take the pressure off the original wall. It is a joy to compare the two walls and see what a difference years of experience can make. **Bottom right**: We bisected the back hillside a short distance from the first two walls about a third of the way up with a low wall planted with perennials. In late April (white) *Arabis procurrens*, (pink) *Phlox subulata*, (yellow) *Euphorbia myrsinites*, *Muscari* and species tulips begin the season of bloom.

comes on pallets packed tightly in wire cages weighing well over a ton. Available also is "old" stone salvaged from the demolition of early buildings.

The amateur stonemason

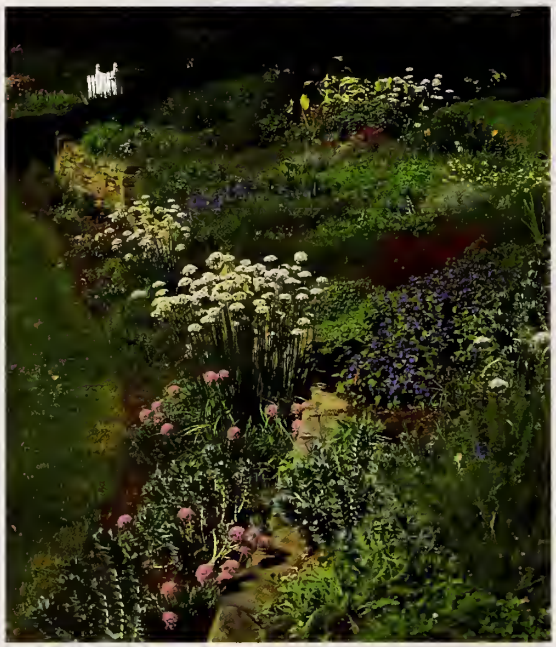
I find more and more "amateurs" trying their hand at wallbuilding and am often amazed at what they create, though sometimes the construction or idea is not workable. Stones stacked at driveway entrances often fall into this category because a free-standing drywall is the hardest type to construct. It should be wider at the base, faced on both sides and tightly packed with smaller stone and gravel in the middle. It would be far easier to construct low retaining walls and backfill them with soil being careful not to the place the walls too close to the edge of the entrance where they can be easily knocked over trying to make the turn.

We used about 15 tons of stone in our wall and patio and made every conceivable mistake.

With a low retaining wall you don't have to worry much about a footing since a dry wall is porous and allows water to pass through. If it heaves with frost it will resettle as the weather warms. Also you only have to worry about one good face showing and most stones have at least one flat surface. While retaining walls can be any height from a few layers on up, I try not to build them over three feet tall and at that point recommend a professional mason. On a steeper hillside instead of one tall wall I often do what I finally did with our patio: create two or more lower walls. They look

photos by Kath Duckett







Top: By June this garden atop the dry stone wall is a mass of bloom with *Nepeta* (catnip, catmint), *Oenothera* (pink species primrose), *Campanula poscharskyana, Gypsophila* 'Compacta plena' (dwarf baby's breath), veronica, *Heuchera* (coral bells), and masses of *Aquilegia* (columbine), which have seeded in along with the brilliant pink annual *Silene armeria* (catchfly). **Bottom left**: In August two alliums, the white *A. tuberosum* (the garlic chive) and *A. senescens glaucum* with its lavender pink flowers are in bloom along with *Sedum* 'Ruby Glow' and the deep blue flowers of *Ceratostigma* (leadwort). *Coreopsis verticillata* 'Moonbeam' is reblooming, having been sheared back with hedge clippers during July. **Bottom right**: Combining perennials and stone is my idea of gardening heaven. Here in Bucks County it is often possible to find enough stone on a client's property to construct low dry walls. On a steep slope two or more low walls look less like a fortress and are ideal for planting perennials.

less like a fortress and are ideal for planting low and ground-covering perennials. I usually leave the top six inches of backfill for the addition of a good soil mix so that I can plant right at the top edge of the wall. Many perennials love this situation with its excellent drainage and work their way throughout the surface of the wall itself.

If you are thinking of trying your hand at building a retaining wall the easiest stone to work with is one that is perfectly flat. Flagstone, which in its cut form is often used for walkways and patios, falls into this category. You can purchase broken flag, which is less expensive and lends a more rustic appearance. If you want steps in the wall you can use the cut treads as they are called in any size you desire. Flagstone comes in lavender, blue, grey and my favorite a green-brown. There are other naturally flat stones and of course those that are handsplit at a quarry. I suggest you feel the stone to see if you can work with it.

I often find women have an undiscovered talent for stonework.

Some people are naturals at working with stone (I suspect it has to do with spatial ability); most can learn and there are a very few who could rearrange the same five stones all day and never be satisfied. I often find women have an undiscovered talent for stonework. Historically one did not think of women as stonemasons so I think there is a lot of untapped potential out there. There is such a sense of pleasure and accomplishment in building with stone that it can be addicting. My advice to the beginner would be to start small and remember that cascading plants can hide as much of a wall as you wish.

HOW TO BUILD DRY STONE RETAINING WALLS

. . . and plant them with perennials

PART II

by Kath Duckett

To estimate the amount of stone needed to build a dry retaining wall, use this formula: Length × Height ÷ 13.3 = tonnage needed.

Example: Let's say you are building a wall 2.5' high by 40' long; 2.5 × 40 = 100 ÷ 13.3 = 7.51 tons. I would order eight tons because there's always waste. Some people figure in 10-20% extra for waste.

1. Sort the stone

toprock (capstones) — fairly large heavy stones of roughly the same plane

corner stones — used for exposed wall ends, ideally larger squared stone

building stone (face rock) — smooth face as close to a 90° angle as possible with flat bases (rocks with humps create gaps)

base stone (bottom rock) — large heavy rocks flat on top and good face (90° degrees), but bottom can be irregular or humped

shims — small thin wedges

backfill (fill stone) — whatever is left over; includes very irregular stones of any size.

2. Lay the base

- Lay a string line tied to stakes to define the wall.
- Trenching: Dig out a trench into which the base stones that establish the line of the wall will be laid. It's important that the trench be cut at a neat right angle especially in the front. If it is a straight wall stretch a string on the ground between two stakes to use as a guide. If the wall curves and you don't trust your eye use more stakes and the string line to define the curve.
- Depth of the base: If the height of the finished wall is under 2 feet remove 2-3 inches of soil and lay the base rock directly on the ground with the back angled slightly downward and the face against the front of the trench. For higher walls dig out the trench deep enough to lay one inch of gravel base per foot of height.
- Width of the base: This should be about 40% of the total height of the wall.

3. Lay the courses

Lay each course (layer) of building stone so that it overlaps the joints of the previous course. Tilt the stones slightly back at the same angle as the base (see drawing B). Try to lay larger stones first then use smaller stones to build to roughly the same height. I lay out the entire base first, then build from each end of the wall.

2



3



photos by Kath Duckett

continued

4. Backfill

As each course of face rock is laid, backfill behind it. Try to lay the backfill stones as flat as possible, filling in any crevices with small pieces. As each layer is laid brush gravel into any spaces left (be sure to keep the same tilt downward toward the hillside). The width of the backfill will depend on the height of the wall at any given point.

4



photos by Kath Duckett

5. Build to level

Hammer in sturdy stakes (rebar is good) at each end of the wall. For longer walls or curves you'll need to place more stakes at intervals along the face. Run a string line along the stakes end to end adjusting it to the projected height of the finished wall. If the wall is level use a line level to periodically check accuracy. Build the courses to the string line leaving enough room for capstones. If the wall is not level you will still need a string line as a guide. It helps to mark the stakes where the line touches them as string lines often move during building.

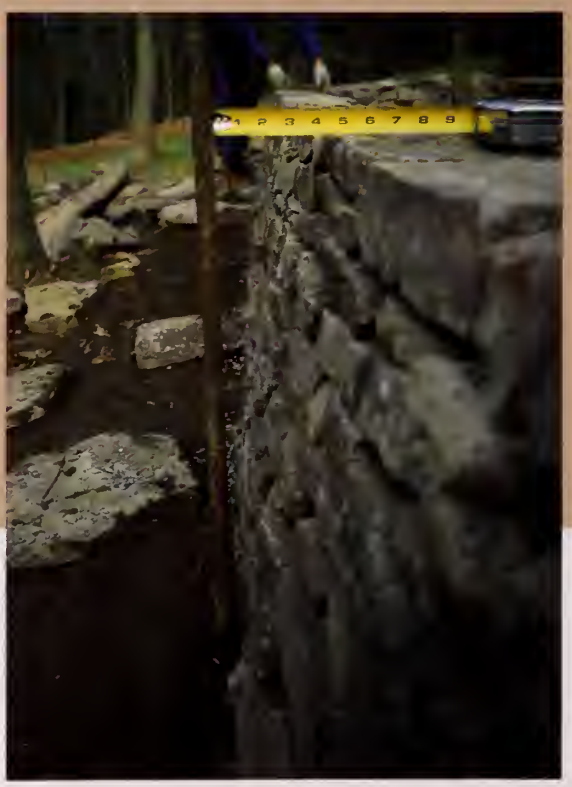
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6. Batter

The face of the wall should angle back 2-3 inches per vertical foot.

6



A.



Capstones: flat stones with good faces.

Gravel fill.

Face stones: Flattest surfaces possible.

Fillstones: stones not good for anything else. Overlap the layers.

Base stone: largest, heaviest.

Soil line: bury base stones 2 in. (You can use a gravel base for higher walls.)

7. Add Capstones

Although you have built the wall tilting back into the slope the top rocks look better laid flat; to do this shore up the back with backfill (gravel and stone) or soil if you are planting on top of the wall. Don't forget to save good large attractive stone for cap rocks. Once they're in place, walk the top of the wall to make sure it is secure (if you want you can mortar down the cap rocks).

7



photos by Kath Duckett

8. Complete the project

Backfill with soil: grade and plant (see box for information on how to plant).



8



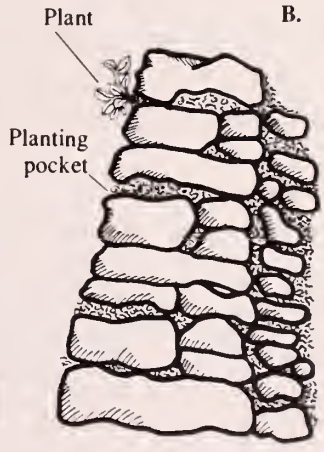
Planting a Stone Dry Wall (see suggested plants on page 10)

Add four to six inches of humusy soil; I use a top soil and mushroom soil mix. Plant the perennials as close to the capstone as possible. Eventually many plants will work their way throughout the face of the wall including: *Ceratostigma, Arabis, Chrysanthemum weyrichii,* and *Campanula poscharskyana.* Others such as *Dianthus* and *Euphorbia* will cascade over the face.

During construction, at each level you can create planting pockets by filling with soil any large crevices or gaps where the face rocks do not meet. Be sure to extend the soil back into the gravel backfill. When the wall is completed, using a narrow trowel carve out enough space for the roots of the small plants, repack the soil firmly around the plants and water well and frequently until they are established.

It would be helpful to mark the planting pockets as you go along so you can easily find them when ready to plant. (If you use sticks just be sure the dog doesn't pull them out as mine did.)

B.



continued

EASY PERENNIALS FOR STONE WALL GARDEN (in order of bloom)

Plant	Time of Bloom	Height	Color	Comment
Alyssum montanum (basket of gold)	April, May	4-6 in.	yellow	cascades
Arabis procurrens (rock cress)	April, May	4-6 in.	white	dark evergreen mat, tolerates partial shade
Brunnera macrophylla (siberian bugloss)	April, May	15 in.	blue	tolerates partial shade
Euphorbia myrsinites (spurge)	April, May	trailing	yellow	bract-like flowers, succulent-like leaves
Iberis sempervirens (candytuft)	April, May	10 in.	white	evergreen foliage, tolerates partial shade
Phlox subulata (mountain pinks)	April, May	4 in.	pink, blue, white	tolerates partial shade, low evergreen mat. "Emerald" pink and blue are true colors.
Polemonium reptans (dwarf jacob's ladder)	April, May	12 in.	blue	tolerates partial shade, will self-seed
Iris pumula (dwarf iris)	May	12-15 in.	blue, white, yellow, salmon	
Armeria maritima (thrift, sea pinks)	May, June	6-10 in.	pink, white	evergreen grasslike foliage
Dianthus gratianopolitanus (cheddar pinks)	May, June	4-10 in.	pink, white	grey-green compact foliage
Heuchera sanguinea (coral bells)	May, June	18-24 in.	rose, red, white	new hybrids have outstanding colorful foliage
Veronica prostrata (speedwell)	May, June	6-8 in.	blue	also recommend *V. incana* and *V. spicata* 'Goodness Grows'
Campanula poscharskyana (bell flower)	June, July	6 in.	blue	ground covers, drought and shade tolerant
Gypsophila paniculata 'Compacta Plena' (dwarf baby's breath)	June, July	18 in.	white	forms low mound, reblooms if cut back
Nepeta x faassemii (catmint)	June, July	15 in.	blue	grey foliage, reblooms if cut back
Oenothera speciosa (sundrops)	June, July	10-15 in.	pink, white	drought tolerant, can be invasive
Campanula carpatica (bell flower)	July, August	6-8 in.	blue, white	
Coreopsis verticillata 'Moonbeam'	July, August	15-18 in.	yellow	reblooms if top few inches sheared off
Platycodon 'Sentimental Blue'	July, August	8-10 in.	blue	compact spreading form
Allium senescens glaucum	August	8 in.	lilac pink	flat glaucous foliage
Ceratostigma plumbaginoides (leadwort)	August, September	10 in.	blue	groundcovering, red fall foliage
Sedum 'Vera Jameson'	August, September	12 in.	rosey pink	spreading clumps with mahogany foliage
Chrysanthemum weyrichii 'White Bomb'	September, October	12 in.	white	spreading daisy

More Reading about Building Walls

An excellent book on stone work is *Practical Stone Masonry Made Easy* by Stephen M. Kennedy available through:
T.A.B. Books, Inc.
P.O. Box 40
Blue Ridge Summit, PA 17214-9988

An excellent article is "Building a Dry-Stone Retaining Wall" by Jim Sylvester, *Fine Gardening,* Nov.-Dec. 1989, Issue #10.

"The Rock Wall Garden" by Judy McKeon, *Green Scene,* May 1992, pp. 21-24.

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Kath Duckett, a certified member of the Association of Professional Landscape Designers, won a 1994 Perennial Plant Association design award. Duckett, who gardens in Doylestown, designs and installs residential landscapes; when possible she particularly enjoys incorporating perennials and dry stone work.

BACK TO SCHOOL FOR HORTICULTURE

Adult education enriches students' lives and offers possibilities for life changes

by Liz Ball



Barnes students study samples during a tree identification quiz. Their level of concentration shows their interest in learning for itself since they are not graded.

photo by Liz Ball

"I like to tell people that I was born again at Longwood," says Richard Bitner, describing the impact his participation in the ornamental plants certificate program at Longwood Gardens has had on his life.

Bitner is one of more than 2,000 people who have taken advantage of this special kind of long-term horticultural education for adults offered here in the Delaware Valley by two distinguished institutions: Longwood Gardens and the Arboretum of the Barnes Foundation. These adult students, diverse in background, age, interests and circumstances are themselves extraordinary for the sustained commitment they bring to their studies.

For as many reasons as there are applicants, people who enroll in classes in horticulture discover an experience of a lifetime. Given the opportunity to talk about their studies in these programs, they enthusiastically describe a unique learning adventure: what they discover about plants and themselves from this special experience enriches their lives immeasurably.

Both Longwood Gardens and Barnes arboretum students regularly travel to Kennett Square or Merion respectively, from areas as distant as Baltimore, Allentown, York, Lancaster, Bethesda, Princeton and the Jersey shore, as well as from more local areas, to attend classes.

The Longwood certificate program consists of two series of eight courses offered in the daytime and evening on a rotational basis over two years. Successful completion of all eight courses, and exams, in either series earns a student the corresponding Certificate of Merit in Ornamental Plants.

Barnes students dedicate one day a week for two 14-week semesters per year, for three years, to complete their program. Barnes Arboretum gives no exams, nor do they award certificates. The fact that few drop out testifies to the students' commitment to their studies.

Some students, like Graham Edgerton, take both courses of study, enrolling in one program upon completion of the other to continue the adventure. A stockbroker by profession and longtime hobby gardener, Graham's appetite for more formal education in horticulture was whetted when he moved to Baltimore 12 years ago and began to attend botany classes at the home

of Professor Elmer Worthley. While he felt he knew a fair amount about plants, especially wildflowers, these classes taught him how little he knew and how much he wanted to know. His next step was to enroll in the Longwood certificate program to gain depth of information. The fact that he had to commute from Baltimore was only a minor consideration. He explains, "People in Baltimore look to the Delaware Valley as a horticultural Mecca."

The ultimate identification skill, according to Graham Edgerton, is "beltway botanizing." Being able to identify a roadside plant while speeding past at 60 miles an hour means that you really know your stuff!

Graham's interest is reflected in his own small rowhouse garden where he struggles to find space to add some of the interesting and unusual plants he has learned about to his collection of longtime favorites. It is also reflected in his deep concern for the fate of the Cylburn Arboretum, an 18-acre city treasure whose future is in doubt because it lacks support in Baltimore. The knowledge he gains through his studies, he believes makes him a more effective advocate for Cylburn and, perhaps, someday he will have a role in its management.

While a proportion of the students in these programs already make their living in the green industry, the rest vary in the amount of knowledge and experience they have with plants and gardening. For some people the original motivation is curiosity, for others it's the desire for practical information to improve their gardens. But quickly it becomes something else altogether: "Once you take a class, you're hooked," says one Longwood student. "You like the feeling of confidence that comes from mastering a huge amount of complex information and you want to have more of that feeling."

The challenge of mastering lots of information is one of the aspects the Longwood Certificate program that Chris Bollar enthusiastically embraces. She and Curt, her husband, have taken the courses together, devising a computer database as a learning device. They enter information gleaned from the course manual and from instructors on the plant study walks into records that they have developed for each plant in the curriculum. According to Chris, "Entering data is a study tool for me. It makes me concentrate on spelling and makes it easy to generate lists of plants with common characteristics."

Chris's gardening experience has geographical breadth. Over the years she has planted in Louisiana, Oklahoma, North Carolina, New Jersey and Germany. While she already knew how to grow plants when she moved to Wilmington and became a volunteer at the Delaware Center for Horticulture, she needed to learn which plants grow well in the Delaware Valley. "Longwood's program is very specific to this area," she says, "so it was ideal for us." She is about to complete Certificate I at Longwood and plans to enroll in the Certificate II program because what began as a practical undertaking has infused her life with a new perspective. "I see things through different eyes. When we walk through the woods we stop and debate about a plant; we compete to see who can identify it. We look at it closely and appreciate it. When I go to someone else's garden I really appreciate what they are doing."



In 1940 when Laura Barnes opened the Arboretum School of the Barnes Foundation, she said that all that prospective Barnes students needed was "a genuine interest in horticulture and the ability to attend." These two criteria were in evidence at Longwood, as well, the Saturday morning after the spring blizzard of '93. Both the hardy bulb class and the conifer class had scheduled plant walks around the grounds to identify and study plants covered in the respective courses. Even though seeing plants under a foot of snow was obviously an impossibility, predictably, students braved uncertain traffic conditions to get to Longwood anyway. As I came around the corner toward the auditorium I was greeted with a scene that, to me, best expressed the kind of dedication to learning that students in these programs have.

A dozen or so adults were uninhibitedly on their hands and knees around long tables festooned with pails of branches cut from many kinds of conifers that lab assistants had hastily improvised for indoor study. The students were intently examining, some with magnifying glasses, each specimen bough. Why were these people doing that when they could be home snug in bed on a cold, snowy Saturday morning? Something more than wanting to know about conifers — or even horticulture — was going on in that cramped area.

One Longwood student told me, "When I come up here I get inspired. When I go home I know I can do the same thing, but it's not all that easy." Obviously, aside from the practical benefits of learning about horticulture the last part of this comment reveals what captures these students — the intellectual challenge.

Tim Storbeck, director of the Arboretum of the Barnes Foundation, believes that the Barnes program offers another route to the same destination. "The key to Barnes's success," he says, "is that it recognizes that adult students are not a homogeneous group, that they have different goals, amounts of study time and types of gardening experience — all of which are equally valid." Each willingly devotes the time and intellectual energy he or she thinks is necessary to benefit from the program. The absence of final exams keeps the emphasis on learning from desire rather than necessity. Under this philosophy students are encouraged to go as deeply into their studies as their circumstances permit. The result is the belief, once expressed by a Barnes student upon completing the three-year course, that "this was more important than college."



Betty Kassab waited a long time for an opportunity to experience the intellectual

Comparison of The Two Programs

Longwood Gardens Certificate Program	The Arboretum of the Barnes Foundation
Courses taken as convenient	Three year commitment
Open registration	Admission interview required
Large group instruction	Class of 35 maximum
Students select courses	Curriculum content/sequence prescribed
Classes evening or daytime weekly	Classes one full day a week
$109 per course	$200 per year (six courses/two terms)
Printed materials provided	Printed materials provided
Courses usually six weeks/two hours long	Courses 14 weeks/one hour long
Plant walks part of each course	Plant walks part of some classes
Final exam only for certificate credit	Informal quizzes; no final exam; no certificate
Call 610-388-6741, ext. 516	Call 610-664-8880

photos by Liz Ball







Top left: Sometimes the way a leaf grows on a stem distinguishes one plant variety from another. Longwood Gardens teaching assistant Richard Bitner (left) leads a group of students on a plant walk where they learn about plants firsthand. **Top right**: Some students develop their own learning materials to help them identify plants. **Bottom:** Instructor Marty Kromer (raised arm) leads second year Barnes students on tree walk on the Arboretum grounds.

photos by Liz Ball



Instructor Sandy Reber encourages a student to feel differences in plant foliage textures on Longwood plant walk.

challenge at the Barnes. As a young woman her life was invested in her career as an X-ray technician and related professional activities. She was busy raising four children and helping her husband with his collection of rare trees. Twenty years ago she became acquainted with the Barnes program through her cousin who was enrolled there and she invited the classes to visit the interesting and unusual trees on the Kassab property. She decided then that as soon as she had the chance, she would enroll in the Barnes program herself. Meanwhile, she attended various seminars and short courses offered by Longwood, Scott Arboretum and others.

As Betty reflects on those experiences she says, "These were just hors d'oeuvres. I saw Barnes as the main meal." It was not until 1989 that she was able to indulge. Her first question at her interview was "is there any age limitation?" At 62, she was just as eager as she had been decades earlier to take part in this adventure. "It took so long for me to get there, I just gobbled it up. I was disappointed at first that we didn't have exams, but the occasional quizzes help." Betty reports that she developed a particular interest in taxonomy. She began to buy books related to her courses, which were the beginning of what has become a substantial personal horticultural library. In the wake of her studies at Barnes she has opened up her garden with its wonderful trees and roses to classes from Barnes and Longwood more frequently. A widely respected authority on hollies, she speaks to many horticultural groups and has developed an interest in teaching also.

Like so many of her peers Betty found more than just absorbing scholarship at Barnes. Meeting and enjoying her classmates was an important part of her experience. They were there to help her through a broken leg the first year, volunteering to drive her to school so that she did not miss more than three classes. They were also there when her husband Joe died two years later. Her class, the class of 1992, known as the "eatingest class that ever went through Barnes," still gets together socially twice a year.

Intellectual rigor underpins these programs. Students are self-starters who do not need grade point averages and the promise of a degree to motivate them. The particular joy in it seems to be in the learning for its own sake, (although the Longwood students already in the green industry respond to the prospect of a final exam with a special intensity for the luster it will add to their resumes.) These students revel in the intellectual opportunity to test their minds in a way that many may not do when they are young and in college.

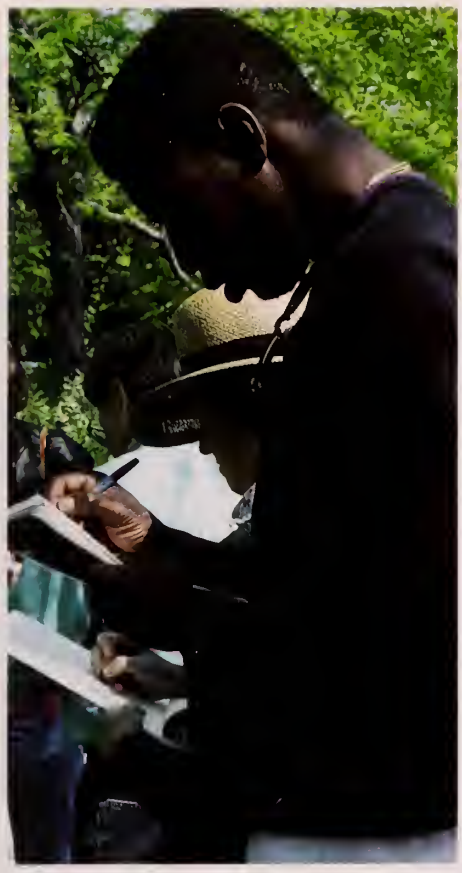
Mort Mitchell, a retired IBM engineer, was inspired to enroll in the Barnes program by a friend whose garden had visibly improved since she attended classes there. He concedes that "the academic information is more than I bargained for . . . the more I come, the more I like it. I see things differently now. The shrubs with berries that I pass when I walk my dog don't all look alike anymore. I can distinguish different plants."

Other students say they garden more cerebrally, less emotionally, as they learn to select the right plant for the right place. Not only are they developing their powers of observation by learning how the tiniest bud or obscure arrangement of leaves distinguishes one plant from another, they are also getting acquainted with all kinds of plants. The ultimate identification skill, according to Graham Edgerton, is "beltway botanizing." Being able to identify a roadside plant while speeding past at 60 miles an hour means that you really know your stuff!

Another part of the intellectual pleasure resides in the discovery of a "truly" scholarly experience. Dave Thompson, coordinator of continuing education at Longwood, is committed to maintaining high standards for their courses. "Members of our program staff are very conscious of Longwood's reputation for excellence, so we all feel an enormous responsibility to provide a consistently significant learning experience for our students."

Katie Heins, a Barnes student, says she knew after surviving botany, her first course, that "this will not be enough." Richard Bitner, a physician, says that the experience in the Longwood Certificate program reminded him of his earlier intellectual challenge: "It was just like being back at medical school, only the cutthroat competition is missing." That this experience is usually unrelated to how these people make their living is important. It's something they are doing for themselves, so the return on the investment is very personal.

Sometimes the personal investment yields unanticipated dividends. For some graduates of these programs like Richard Bitner who has found space in his medical career for many rewarding hours as a teaching assistant at Longwood, the investment has



Taking notes at sites adds a third dimension to students' learning: classroom work, observation in the field, and interpreting for further study.

yielded an absorbing avocation. For others like Bob Scanzaroli it has been a catalyst for career modification. Participating in the Longwood program widened his professional horizons well beyond his job as a grounds supervisor for a local school district. A desire to expand his knowledge and his enthusiasm for the ornamentals he's planted in his own yard prompted him to take the Certificate I courses. Predictably, he found himself totally caught up in the challenge: "There's so much to know. Distinguishing viburnums from one other, rhododendrons too, is tough. I photograph the plants so I can remember them better." A veteran of several courses, now, Bob cites the final examinations as a critical experience. "I study for days, making plant lists, memorizing their traits and families, and practicing the spelling of their names.

Bob thinks the plant walks scheduled in addition to class time and led by Longwood teaching assistants play a key role in enabling the students to master the curriculum. Seeing examples of the plants covered in each course and having instructors available to answer questions offers encouragement and anchors the learning. It certainly has done that for Bob, who now works at Longwood Gardens and is taking courses in the Series II Certificate program.

Over the years many other Barnes and Longwood graduates have chosen a profession in the green industry. The Delaware Valley is rich in professional gardeners, nursery personnel, garden writers and public garden or arboretum staff who were trained at Longwood or Barnes. As backyard gardeners, volunteers or professionals in the horticultural world the graduates of these programs contribute enormously to the preeminent role the Delaware Valley region plays in the world of horticulture. But more important, the graduates declare, is the contribution these programs make to their personal lives.

Our best learning experiences teach us something about ourselves while we learn about the world. Students who commit themselves to a long-term investment in learning about plants, garden design, and cultural practices at Longwood Gardens and at Barnes arboretum, also commit themselves to a process of self-discovery and self-fulfillment. That's what was going on around the conifer boughs at Longwood on that snowy morning.

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Liz Ball is a garden writer, photographer, and speaker. She is an annual contributor to *Green Scene*, and has co-authored several books. She currently writes a newspaper column called "Yardening." A former teacher, she retains her interest in education while she gardens in Springfield, Pa.

Teachers at Longwood Gardens and The Arboretum of the Barnes Foundation

Of course, the intellectual ambiance is in large measure created and sustained by the superior quality and dedication of the teaching staff of the Certificate of Merit in Ornamental Horticulture program at Longwood Gardens and the course of study at The Arboretum of the Barnes Foundation. Typically teachers in these programs have degrees in their field and many are faculty members at regional colleges and universities. In fact, some teach at both Longwood Gardens and Barnes Arboretum. Their commitment of time and travel mirrors that of the students. Many come long distances to teach a class for an hour or two and then return to their campuses to conduct classes there later in the day.

Teachers at Longwood are backed by a staff of hard-working teaching assistants, many of whom hold certificates from Longwood. They conduct the plant walk "labs," all the while encouraging and challenging students. Instructors at Barnes incorporate tours of the arboretum into their daily lessons.

Teachers generate their own materials in the form of basic course manuals, supplemented by articles and reference lists provided by them or, at Longwood, also by their teaching assistants. Teachers provide their own slides for class presentations. Both Longwood and Barnes have libraries for student use.

Portrait of a Teacher

Marty Kromer teaches at both Longwood Gardens and the Arboretum of the Barnes Foundation. Typical of the instructors in these programs, his approach to teaching is informed by extensive experience with plants and a deeply felt sense of vocation. "I see working with the soil in the garden as an opportunity to touch something of life. It is like taking communion every day."

A self-described "gardener," Marty is also a natural teacher. His good humor and enthusiasm encourage his students to master the distinctive characteristics of each plant so that they not only can identify it, but that they can appreciate it. "It doesn't matter what they look at. If I can get them to look at one thing — any particular component or part of a flower or leaf — then they'll do this with everything."

Marty speaks with authority on the 94 groundcovers and the 100 or so trees that he covers in the courses he teaches, because has grown them all himself, either on his own property or in gardens that he cares for. His personal experience with the magic of each of them is contagious.

With his double major at Dickinson College in botany and music, it is not surprising that Marty has his own special perspective on horticulture. While some have compared it to art, he believes that music is a better analog. "I think music, the experience of sound through time, is closer to horticulture, which is the experience of plants through time."

HERB SHORTCUTS

by Anne S. Cunningham



photo by Anne S. Cunningham

Herb-inspired products at the Philadelphia Unit of the Herb Society of America sale last spring.

This time of year really separates the grasshoppers from the ants. Having heard that frost is expected by midnight, the procrastinator runs frantically through the garden, waving a pair of scissors and overfilling the harvest basket. The experienced herb gardener goes out for yet one more harvest to add to the cache of herbs already preserved throughout the summer.

For all those grasshoppers who have more love for herbs than time or forethought, we checked around to find the simplest, most flavorful ways to preserve herbs for winter culinary enjoyment.

Jennifer Grace, who co-chairs the May Herb Sale of the Philadelphia Unit of the Herb Society of America, uses herbs in her kitchen as well as for crafts and medicinal purposes. By fall, her freezer overflows with herb oil concentrates, and her pantry shelves bend under the weight of herb-flavored condiments and dried seasonings in colorful jars. Over the years, she's developed favorite techniques by reading, sharing with fellow herb enthusiasts, and most of all by experimenting.

"Even though your herb garden might be right outside the kitchen door," says Grace, "you need to have them close at hand to really experiment and learn." So she keeps daily fresh clippings of herbs in a water-filled jar next to the stove. If she doesn't use them all in one day, they go into a plastic bag in the refrigerator, where they'll stay fresh for several days. Anything left over at the end of the week, including stems and clippings not used in cooking, she sprinkles on the ground in her vegetable garden and under the fruit trees on her farm in Kimberton. Their strong scent helps repel pests, and eventually the decomposed herbs add nutrients to the soil.

As she harvests her herbs throughout the summer, Grace puts more of her crops into herbal oils than any other method of preserving.

Herbal oils

There are two kinds of herbal oils: regular and in concentrate. Regular herbal oils, for cooking or in combination with vinegars in salad dressings, are merely 1/2 cup minced herbs with one cup of oil. Combine them in a glass jar, shake and let stand at room temperature for several days. (Roots like garlic and horseradish only need to soak for a few hours.) Unlike vinegars that look pretty with delicate sprigs floating in the bottle, herbal oils

Easy Ways to Save Favorite Herbs for Winter Cooking

must be strained after standing to avoid potential bacteria. Then the cook has only to label the containers and store them in a cool dark place. Olive and sesame oils can stay at cool room temperature; others should be refrigerated.

Herb oil concentrates are the favorites of cooks because they can be savored all winter as they spark up soups, stews, sauces, marinades, even baking. Concentrates require a ratio of 1/2 cup oil to two cups of leaves either chopped, or put in a blender or food processor for the desired consistency. Depending upon the intended use, the cook chooses a rich olive oil base, if the herb concentrate is for sauces, or a light safflower/canola oil base, if a more delicate herb concentrate will be used for baking.

The finished product goes into plastic ice cube trays, teflon-coated muffin pans, or glass jars, and then into the freezer. Once frozen, the ice cube (equivalent 2 tbsp.) or muffin-size pellets (= 4 tbsp.) are transferred to a plastic bag, labeled and put back in the freezer where they'll keep for a year or two. Jennifer Grace prefers to freeze her herbal concentrate in glass jars (small, baby food size), keeping the lid off until after it's completely frozen so there's no danger of cracking glass. Whatever she puts in the freezer, she tries to leave as little air as possible in the bag or at the top of the jar to ensure freshness.

Jennifer Grace saves the dried stems to use as fragrant fire starters in the winter.

Drying herbs

Even though we may enjoy the romantic image of dried herbs hanging upside down from the kitchen rafters, most people discover these crumbly bunches become dust catchers and homes for spiders. For efficient drying and clean herbs to use in cooking, the experts recommend tying the bunches of herbs in a brown paper bag with holes punched in it, then hanging the whole package in a dry warm room with good air circulation until the herbs are dry. Jennifer Grace then strips the dried leaves from the stems, stores the leaves and saves the dried stems to use as fragrant fire starters in the winter.

Cooks who want to dry lots of herbs at one time have invented ingenious ways to hasten the process. One gardener puts all her herbs in her car parked in the sun, with the windows open just a crack for ventilation. (Sounds easy and smells good, but the herbs' volatile essential oils dissipate at high temperatures.)

Assuming the lower the temperature the better, another cook decided to dry her herbs in the refrigerator. She chopped up the leaves, put them in a large shallow bowl, and fluffed them up every once in a while for three days, until they were dry.

High tech cooks use a dehydrator or a microwave oven set on medium power (about 90°F) for 1½ minutes. Low tech cooks dry leaves and flowers laid out on cheesecloth-covered cookie sheets in a regular oven set at 100°F. With the door propped open the oven method takes several hours, but herbs dry at different rates, so they have to be watched carefully.

Once they're dried and cooled, the leaves should go into glass jars with tightly fitting lids. Dark-colored jars are ideal, though clear glass jars are fine if they're kept out of the light. Many gardeners break the leaves only enough to fit into the jar, so they can crush the leaves when it's time to cook, releasing the aroma into the food rather than into the air. Others prefer to powder the dried leaves by running them through a food processor or by mortar and pestle. In a side note about herbs, the Pennsylvania Horticultural Society's cookbook, *Great Recipes from Great Gardeners,* says the recipe conversion ratio for cooking is one tablespoon fresh herbs = one-half teaspoon crushed dried herbs = one-third teaspoon powdered herbs.

Dried herbs retain their freshness for about a year. When it's time to throw them out, as mentioned above, broadcast them on the vegetable garden or at the base of fruit trees to repel pests.

For more detailed information on drying herbs on screens, racks, or in desiccants for crafts, Sterling Publishing's new *Herb Drying Handbook* by Nora Blose and Dawn Cusick profiles 60 different herbs with specific drying techniques that retain the best characteristics of each plant.

Seasonings

Michele Eichhorn of Bucks County takes dried herbs one step further by creating dried seasonings. Two years ago she won the Best in Show award at the Pennsylvania Horticultural Society's annual Harvest Show for her dried seasoning collection. Her clever concoctions were made from dried tomatoes, peppers, and herbs balanced in different ways to serve as a flavorful base for salsa mix, tomato soup base, salad sprinkles, and chili to last through the winter. This September, Eichhorn is the chair of the Preserved Products division of the Harvest Show, overseeing hundreds of creative entries from talented Delaware Valley cooks and gardeners.

photo by Ira Beckoff



Visitors to the 1993 Harvest Show marvel at the ingenious ways exhibitors preserved their summer garden's treasures. In 1994, exhibitors have 110 classes in the Preserved Products Section to choose from.

The Pennsylvania Horticultural Society's Harvest Show

Gardeners can show off their gardening achievements, including herb-saving ideas, as well as find inspiration at the Pennsylvania Horticultural Society's 1994 Harvest Show, open Saturday, Sept. 17 and Sunday, Sept. 18 at the Horticulture Center in Fairmount Park.

This year's theme, "Children Celebrate the Harvest," features hundreds of classes, for exhibitors of all ages, that include herbs and herb-based preserves, wreaths, dried arrangements and more. Even the youth competitive section, with ribbons for all, encourages youngsters to make simple, tasty vinegars and other preserved products.

Open from 10am-5pm, with joyful games and pumpkin activities for the youngest children, the 1994 Harvest Show admission prices are $4.00 for adults, $2.00 for children.

For further information about how to enter the competitive classes of the Harvest Show, call the Pennsylvania Horticultural Society at (215) 625-8250.



photo by Ira Beckoff

Children proudly display their own herbal oils and vinegars in the Youth Section competitive classes of the 1993 Harvest Show.

Of the many herb-inspired cookbooks on the market, Maggie Oster's *Recipes from an American Herb Garden* (Macmillan Publishing Co., 1993) stands tall above the rest. She takes the reader from growing herbs to harvesting to celebrating their exquisite influence in cooking. Her advice for how to use dried herbs includes this zesty seasoning:

Salt-Free Herb Seasoning

1/4 cup instant minced onion
1/4 cup dried dill leaves
3 TB toasted white sesame seeds
1 TB dried thyme
2 tsp celery seeds
2 tsp dried lemon peel
1 tsp sweet Hungarian paprika
1/2 tsp garlic powder
1/2 tsp freshly ground black pepper

Freezing

For maximum flavor and nutritional value, purists agree that more of an herb's essential oils are maintained when the flowers or leaves are frozen than when they're dried. Freezing works particularly well for delicate dill and fennel.

As with drying, the leaves should be harvested midmorning on a dry day before the plant has set flowers. While some cooks don't wash herbs at all because they don't want to wash away the essential oils, those who do wash herbs dry them in a salad spinner or very thoroughly between towels before spreading them out on a baking tray and putting them in the freezer. When the herbs are frozen, the cooks put them in a container, label it, press the air out and refreeze them. Then they have the flavorful equivalent of fresh herbs to measure out for cooking.

Herb vinegars

Perhaps the most colorful way to preserve herbs is by making herb vinegars. Maggie Oster's cookbook encourages major flavor by saying "a cup of loosely packed fresh, clean, dry leaves or flowers to a pint of vinegar is not too much." As with any cooking, the finer the quality of the ingredients the better the finished product; and vinegars can range from the harsh distilled white generic kind useful for scouring coffee pots to high quality delicate fruit or wine-based vinegars.

Vinegar combinations are almost unlimited. An Italian-type vinegar could include basil, garlic, thyme, oregano and parsley or fennel. A lemon-inspired vinegar could have lemon balm, lemon thyme, lemon verbena, even a tiny piece of lemon rind. Then all it takes is time for the ingredients to steep. It's up to personal preference whether to leave the herbs in the liquid or strain them (through double-thick cheesecloth or a paper coffee filter) then add just a sprig of herb for decoration. Glass jars highlight the color of the vinegar, but the tightly fitting tops should be made of plastic, since metal and cork react to the acidic liquid.

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Anne Cunningham is a frequent contributor to *Green Scene*. Her work has appeared in *The Philadelphia Inquirer*, *Philadelphia Magazine* and a number of national publications. Cunningham is the chair of PHS Publications Committee and chaired the Editorial/Design Committee for the recently published PHS cookbook: *Great Recipes from Great Gardeners*.

Choose Shrubs for Fall Color in the Mixed Border

by Richard L. Bitner

We delight in spring's rush of color in our gardens, plan carefully for a succession of blooming perennials in the early summer border and depend on annuals, asters and mums to provide color during late summer. But how often do we focus on extending the interest in our borders by planting woody ornamentals specifically to provide rich fall foliage color?

Shrubs have long been a part of the mixed border. During the growing season these plants provide structure to the mass of flowers as well as texture and color harmonies while requiring almost no maintenance. Selected thoughtfully these woody ornamentals will also offer a seasonal color change that lends a more natural look to the planting when viewed in the larger landscape and extends beauty in the border after most of the perennials are spent. Many adapt easily to a variety of exposures and soil conditions. The native species, in particular, will often tolerate wet spots where other plants have rotted out. All of the plants I am suggesting for the mixed border are also wonderful as specimen plants in the garden or planted in masses. Unless noted all are both pest-resistant and available at fine nurseries.

Itea virginica, Virginia sweetspire: a native plant that no garden should be without. The three-ft. shrub, covered with 6- to 8-in. pendulous white racemes in June and early July when few woodies are in bloom, provides medium-fine texture in the border during the summer, and then delivers a blaze of reddish purple, scarlet and crimson color in the fall. I like the cultivar



Itea virginica 'Henry's Garnet.' **(Left)** Early summer bloom; **(right)** fall color.

photos by Richard L. Bitner



'Henry's Garnet'* especially because the fall color is long lasting; in my garden the fall color persists for **six weeks**. It will sucker to form a broad mound or divisions for friends. It colors best in full sun, but tolerates some shade and prefers moist, fertile soil. I planted one next to water where its fountainlike appearance in bloom is pleasing.

If I had room for only one of these shrubs for fall color, I would choose* Hydrangea quercifolia, *the native oakleaf hydrangea.

Bottlebrush buckeye, *Aesculus parviflora:* a native plant that deserves wider use. Definitely a large scale plant, 8- to 12-ft. tall, with rather coarse foliage and a wonderful branching structure. It suckers once it's established, although in my garden it has grown slowly. This plant will glow briefly in the fall with its lemon-yellow color in the **shady** part of the border and has the additional advantage of a wonderful midsummer bloom. The white bottlebrush-shaped panicles are erect and a foot in length, with prominent stamens. It gets none of the diseases so common in the other *Aesculus* species.

The *Amelanchier* genus is very confused in the trade and although these natives are often considered trees, they can also be grown as multistemmed shrubs. They are easy to grow and tolerate a wide range of moist or dry soils. *Amelanchier* (serviceberry) has a medium growth rate and its 4-in.-long clusters of white flowers last less than a week in April. Its edible berries are great for pies if you can harvest them before the birds. It is, however, one of the finest plants for fall color — a dull, dusty, deep red with yellow and orange tones. The smooth, dark gray bark adds to the delight of this plant. 'Cole's Select' has exceptional fall color, although many cultivars are available. Like all the *Rosaceae* it is subject to rust and leaf spot.

For dazzling fall color in the mixed border nothing surpasses *Fothergilla gardenii.* In November, long after most deciduous trees and shrubs have lost their foliage, this plant produces scarlet, orange and red color combinations on its witch-hazel-like leaves. A slow grower it seldom exceeds 2 ft. - 3 ft. making it practical for even a small border. Its fragrant white bottlebrush flowers appear in midspring, sometimes before the leaves. It appreciates well-drained, acid soil and does well with ericaceous plants.

Although *Enkianthus campanulatus* is said to reach 12 ft. it has been slow-growing in my garden and is eminently useful in a lime-free spot in the border. The pendulous clusters of bell-shaped, creamy-yellow flowers with red veins open in May and June, after the plant leafs out. The rather dull green foliage grows in whorls and provides contrast in summer, but it's most effective in fall when it turns brilliant orange-red. There's some color variation in this plant, I have found, so it's best to select your specimen carefully. The white-blooming *Enkianthus perulatus* is much harder to find in the trade but is worth seeking out because of its bright scarlet fall color.

If I had room for only one shrub for fall color I would choose *Hydrangea quercifolia,* the native oakleaf hydrangea. It holds interest every season of the year. In the spring it provides a background of coarse-textured foliage, 12-in. long and shaped like an oak leaf. Its huge white lacy flower clusters appear in midsummer and then change in color to pinkish white and finally golden brown while the leaves become russet-red to purple. The dried flowers often persist on the plant and the exfoliating bark is eye-catching growing through the snow. This is a spectacular plant. Try to get the cultivar 'Snow Queen,'* which in my garden provided many blooms even as a very young plant. Another cultivar, 'Snowflake,' has been selected for its large double flowers. Oakleaf hydrangea grows best in a partly shaded, sheltered situation with adequate moisture.

Disanthus cercidifolius may be unknown to most gardeners but deserves much wider use. This connoisseur's plant is grown only for its dazzling fall color, which will develop even in deep shade. It requires a moist, well-drained, organic soil with protection from the wind. Its redbud-like foliage is one of the first to color. It begins to change in mid-September from green to purple to claret-red. Inconspicuous dark purple witchhazel-like flowers appear in October on the zig-zag stems. You will probably only find this as a small specimen from specialty mail nurseries or arboretum plant sales but any gardeners who spot this plant in fall color will not rest until they obtain one for their wood's edge or north-facing border.

*A Pennsylvania Horticultural Society Gold Medal Plant Award winner



photos by Richard L. Bitner

Fothergilla gardenii. **(Left)** Spring bloom; **(right)** fall color.

A trio of natives and choice viburnums

Red chokeberry, *Aronia arbutifolia:* an easily cultivated native shrub with a suckering habit. Not only does it have brilliant red fall color but also bright red fruit, which the birds ignore until late winter. Look for the cultivar 'Brilliantissima.'

Another native, *Clethra alnifolia* or sweet pepperbush, shines with a clear yellow color every autumn in a partly shady, moist spot of the border. It's especially valued for its wonderfully fragrant late-summer flower racemes.

Many short cultivars of highbush blueberry, *Vaccinium corymbosum,* are available and could be used in the sunny acidic parts of the mixed border. Not only can the gardener enjoy the edible blueberries in midsummer but the orange and red fall







Enkianthus campanulatus. **(Top right)** Spring bloom; **(bottom right)** fall color.

The colored fall foliage of many shrubs extends the visual pleasures of the mixed border well into the autumn season, which Louise Beebe Wilder in* Color in My Garden *(1918) called "The last festival of the garden's life."

foliage glows as if lighted from within. The red and yellow twigs add interest during the winter season.

Viburnums are indispensable in the mixed border for their flowers (often intensely fragrant), their attractive foliage, and their berries. Many also have brilliant fall color. Several I've particularly noticed are *Viburnum* x 'Mohawk,' which turns orange-red, *V. plicatum* f. *tomentosum,* which turns purple-red and many *V. opulus* cultivars, which turn bright red.

Besides providing background for herbaceous plants and coordinating with them from spring into late summer, the colored fall foliage of many shrubs extends the visual pleasures of the mixed border well into the autumn season, which Louise Beebe Wilder** called "The last festival of the garden's life." Henry Mitchell***, one of my favorite contemporary garden writers, has written "The cycle of life in the plant is a good bit more enjoyable than the bloom itself . . . never mind what the plant is famous or infamous for. Look and see for yourself."

**Louise Beebe Wilder, *Color in My Garden,* Doubleday & Page, Garden City, N.Y., 1918

***Henry Mitchell, *The Essential Earthworm,* reissued in paperback, Houghton Mifflin Co., 1994

Recommended Book

The Garden in Autumn, Allen Lacy, The Atlantic Monthly Press, N.Y., 1990. Rather than simply a time to put our gardens to bed, Lacy proves in this complete and practical book that autumn is among the best times for color in North American gardens. He wrote the book, he says, because he was "suddenly struck by the accumulated evidence in my own garden that autumn could be the very best of seasons."

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Richard Bitner is an anesthesiologist by profession and a teaching assistant at Longwood Gardens by avocation. He gardens on an old farm in Lancaster County.

Silver Shines in the Garden

by Walter Chandoha



Some years ago my son gave me a blue spruce for Father's Day. It's what nurserymen call a shiner — when the new needles emerge in the spring they are a brilliant, almost white, silvery-blue. He planted it in the perennial border adjacent to a low brick wall where it grew very slowly and was largely ignored for many years. But when it topped the wall and began to widen I saw it had the potential for becoming a focal point in the garden. But a focal point for what?

There were peonies growing on one side of the tree and ordinary iris on the other. When I build a garden I try to incorporate a dominant element somewhere in the scene: it could be sculpture, a sundial, a clump of ornamental grass, an outstanding solitary specimen or a cluster of one kind of plant or another. I sensed that the blue spruce had this promise of being an "eye catcher." But the spruce alone was not enough; I felt the area needed something else, something more than iris and peonies.

Before I plant anything in the garden be it herbs, vegetables, flowers, trees or shrubs, I mull over the project at hand for awhile. Sometimes I do more thinking than doing and the project never gets beyond the thinking stage. For several years it was this way with the blue spruce; every time I passed it I knew it had greater potential than just a specimen tree in the perennial border. But how to use it to its best advantage eluded me. I kept looking and thinking but nothing came of the pondering.

Then during a visit to Longwood Gardens in Kennett Square, Pa., the idea of creating a silver garden with the blue spruce as its focal point was born. In one of the conservatories at Longwood, Isabelle Greene of Santa Barbara, California, created an impressive silver garden. I could not possibly duplicate it, nor would I want to try. Many of the plants in her sub-tropical garden under glass would not be hardy here in my USDA Zone 6 New Jersey garden. Additionally, I had neither the time nor the resources.

The Longwood silver garden got me thinking, and I started to do some homework. As I visited public gardens around the country, private gardens on Pennsylvania Horticultural Society tours and those of my friends, I paid special attention to plants that had grey, silver or blue foliage that were hardy in our area. From what I saw in the gardens and from offerings in garden catalogs, I figured there were plenty of choices for the makings of a spectacular silver garden.

Gifts from friends

I already had some blue and silver foliage plants growing in various parts of my garden that could be transplanted to the silver garden site. Four plants that had long been favorites of Maria, my late wife, were silver king artemisia, lamb's ears, catnip and yarrow. Maria dried their flowers for later use in her winter bouquets. These plants were growing in abundance in various parts of the garden and were the first to be planted in the silver garden site. Next I added a border of bulbous oat grass adjacent to a large clump of ribbon grass contributed by a friend, Marie Salvarini. When Jim Snow, a turf expert with the USDA, saw the ribbon grass he said it has a tendency to spread and maybe I should keep it confined to a plastic pot buried in the ground. I didn't and it has become somewhat invasive. I've since dug it up, divided it and put it in a submerged pot.

From another friend, Pearl Cioffi, I got starts of *Cerastium*; it too is spreading but not quite as fast as the ribbon grass. My son-in-law, Flavio Valentino, introduced me to Cavolo Nero Di Toscana, a kale that he insists must be used when making La Ribolita, the famous vegetable soup of Florence. Cavolo Nero has slender, crinkly leaves with an intense silver/blue color that looks good with other plants in the silver garden. Years past, Flavio brought seed back from Italy for me but now it is available from some American seed catalogs under the name of 'Lacinato.'

As the garden developed, I added other plants to vary shape and texture of the



photos by Walter Chandoha

Left: Focal point of the silver garden, the bright blue spruce is surrounded by lamb's ears. Soon-to-bloom yarrow, daisy and rose campion in the foreground will color the garden when peonies behind the spruce fade.

The flowers of rose campion, lavender and poppy give more color to the silver garden. After the poppy flowers fade their seed pods add another variation of shape and form to the garden.



photo by Walter Chandoha

Miscanthus sinensis 'Morning Light,' an ornamental grass, adds a vertical element to the silver garden. Its slender blades along with those of the blue lyme grass *(Elymus arenarius)* contrast with the ferny foliage of dusty miller and 'Powis Castle' artemesia.

foliage and sometimes to add a touch of color. Clumps of silver santolina and almost-white dusty miller contrast nicely with slender, lanceolate leaves of grasses. I use sedums like 'Autumn Joy' and 'Brilliant' more for their fat succulent leaves than for their flowers; they nicely balance the finely cut leaves of the various artemisias, lavender and catnip.

None of my gardens are permanent, they're constantly in a state of flux. They vary from year to year; new plants are added, some plants die, others are banished to the compost pile because of some unfavorable characteristic or another. It's the same with the silver garden. The pictures shown here were made in its early stages. The garden today has a slightly different look. Some of the plants remain, some are gone, but they have been replaced with others that I hope will prove to be in harmony with my concept of how the silver garden should look. About the only element of the garden that is constant is the blue spruce.

This year for the first time I planted Scotch thistle immediately next to the blue spruce. A gift from fellow garden club member Chris Heun, it looked great when it was small and about half the size of the spruce but when they were of equal size they conflicted visually — both the spruce and the thistle competed for attention. So next year, to keep the scale harmonious, I'll keep the thistle pruned so it grows no bigger than 3-4 feet.

Another new addition this spring was 'Powis Castle' artemisia. Unlike its cousins wormwood and silver king artemisia, this cultivar forms a graceful, rounded mound and its foliage contrasts nicely with the grasses. And unlike the other two artemisias, it has not flowered — so far. When the others flower they tend to get floppy.

In addition to their attractiveness, ornamental grasses have another big plus — deer don't eat them.

Adding color

Another change I've made is to introduce more color. But I can't decide if I like or want flowers in the silver garden. Those on the artemisias and the lamb's ears are so inconspicuous that I put these in the non-flowering category. Catnip has a very delicate flower, as has lavender. One year I had rose campion in the silver garden and it added a nice visual spark. As the *Cerastium* spreads, its white blossoms become more and more impressive. Very dominant was the brilliant yellow of yarrow. Lavender poppies atop their slender stems looked good, but the plants were volunteers and because there were so few of them they were not too conspicuous. The sedums color the garden in the fall — if the deer haven't eaten the buds. Maybe next year I'll add more flowers as a test. If it proves successful I may never go back to the non-flowering kind of garden.

My original objective with the silver garden was to make it completely perennial but the poppy volunteers prompted me to change my thinking. And when I saw how impressive the Cavolo Nero looked in the vegetable garden I transplanted some seedlings into the silver garden. And why not leek? The grey/green strap leaves are a good contrast to the ferny leaves of yarrow and those of the various artemisias. And good old American kale or collards with their bluish leaves would look great. The one plant that really convinced me that annuals would be a distinctive addition to the silver garden is trailing *Helichrysum petiolatum.* Before I "discovered" this plant, to my botanically untutored eye, *Helichrysum* meant only one thing — strawflowers; yet when I saw this low-growing spreading annual I knew it would be perfect for the garden.

As the silver garden evolved I felt it needed more verticals to echo the now 12-ft.-high spruce. So this year I planted three clumps of 'Morning Light' *Miscanthus* in front of and to the left of both the blue spruce and the Scotch thistle. The grasses show lots of promise. Next year when they reach their full potential, I'll probably have to give them more room.

Another ornamental grass I've added to the garden is blue lyme *(Elymus arenarius).* Everything I've read about this grass said it is a rampant spreader, so learning a lesson from the spreading ribbon grass I planted the blue lyme in plastic pots buried up to their rims. Even with regular watering and fertilizing nothing happened; the grass not only did not spread, it hardly grew. So I took them out of their pots, fortified the area with lots of compost and replanted. Now they're finally thriving but hardly spreading rampantly. Maybe I have a non-spreading cultivar.

In addition to their attractiveness, ornamental grasses have another big plus — deer don't eat them. And except for sedum and the Italian kale, our local deer have not eaten anything else in the silver garden. So for gardeners who live in Bambi country, growing a silver garden might be the way to go. You can have a respectable garden and keep your peace with Bambi.

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Walter Chandoha's silver garden is one of many theme gardens on his farm in northwestern New Jersey. He also has gardens of ornamental grasses, herbs, perennials, lilies and vegetables. A photographer whose work has appeared in many national magazines, often on their covers, Chandoha presented, this spring, programs on garden photography at the Cloister in Sea Island in Georgia and at Davidson College in North Carolina.

THE POWER OF ONE

by Kathleen A. Mills

One person saves a 130-year-old elm and shows people a way to work with the community, organizations and government agencies.

When forced to protect home and property, our combative instincts usually rise to the surface. We're willing to fight to safeguard what's ours, but are we willing to build relationships with our "transgressors"? George Higgins of Hockessin, Delaware, is; he's willing to ask questions, to listen and to learn. George Higgins proves the power of one.

The road bordering the Higgins' 1868 house is slated to be widened, taking with it a strip of property. The state purchases land from homeowners and compensates them for landscape losses. In the Higgins case a 130-year-old elm lives on the land that will be sold to the state. Construction plans for the road include specifications to protect the tree because the state views it as valuable. Standard practice protects around the trunk — forgetting that the young, active feeding roots, vital to its existence, extend past the drip line of the tree. So while the intent is honorable, the execution leaves much to be desired from the tree's viewpoint.

George Higgins decided to talk to arborists, including one from the Morris Arboretum of the University of Pennsylvania, to get a valuation for the landscape plants he would lose and to take a look at the elm tree's plight. Without a doubt the elm was doomed unless the construction specifications were changed. Valued at $9,701, the tree was in fact irreplaceable. Once the land was signed over to the state the elm would be theirs and be protected only as the state saw fit.



photo by Fee Sepahi

George Higgins helps plant a Liberty elm at Swift Park in Hockessin, Delaware, one of the many events planned for fun and education at *Tree Spree*, a day-long celebration as part of his quest to save a 130-year-old elm tree. Three hundred people gathered to learn how to plant and care for trees.

George Higgins registered the elm as one of 500 Historic Elms in the nation with the Elm Tree Institute, and then started building bridges. With professional guidance he convinced the state that if they wanted to save the tree, as they had stated they do, using arborists' standards would give the tree the best chance for survival. After long hours of letter writing and phone calling, extending over a period of months, the specifications were changed. George Higgins signed over the land to the state, confident that he had done all he could to save the tree. Most of us would call this a victory.

Travelling down this path George Higgins met people who were sympathetic and helpful to his plight: state government officials from the Department of Transportation and the Department of Agriculture, arborists, representatives of various "green" organizations, including the University of Delaware's Extension Service, and concerned neighbors. They all seemed to care. Said Mr. Higgins, "It's all about building relationships; I treated people with integrity and was met with integrity at every instance."

George sensed a need for the community to come together to learn more about the issues involved. After all, he had started out knowing little about trees and government and had invested a lot of time educating himself, time he knew not every homeowner has. With that in mind, *Tree Spree* was born. Colleagues, family, area organizations, politicians and government agencies all pitched in to pull off this event to celebrate the power of one.

"I was never married to the outcome, only to the process," said Higgins. The process ended in a day-long celebration of trees, *Tree Spree!* On April 23, 1994, on the Higgins front lawn, they partied. A stage provided by New Castle County, provided

photos by Kathleen A. Mills

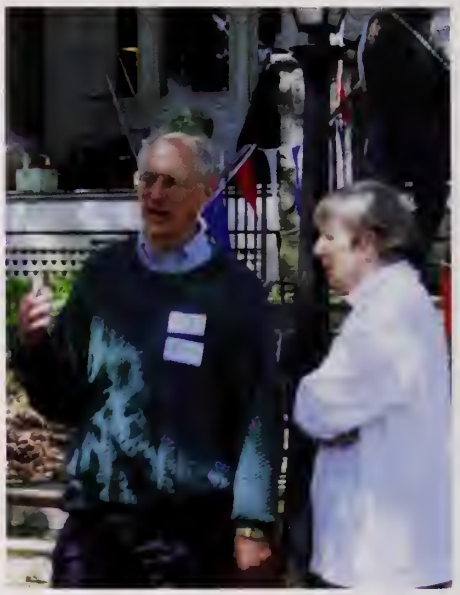


The 130-year-old elm saved from certain death by George Higgins's efforts.

a focal point for guest lecturers, musicians and poets. Under the tent, area organizations like Hagley Museum, Morris Arboretum of the University of Pennsylvania, and New Castle County Conservation District, presented educational displays. Higgins had brought the experts to the community with the help of family and friends. Area politicians, press and families gathered to learn about how to select, plant and care for trees. A Liberty elm was planted in a nearby park and guests watched with great interest the process of elm tree inoculation to fight dutch elm disease.

George Higgins is not afraid to ask questions and to learn. By immersing himself in a cause he felt strongly about, he was able to remove barriers, empowering

George Higgins was never married to the outcome, only to the process.



George Higgins, recently retired, devoted months to planning *Tree Spree* — an event where the public and horticultural professional could meet and exchange ideas.

government agencies to do their jobs better; empowering homeowners to protect their valuable trees; and providing a forum for the public and professionals to meet and learn from each other. "I was just a catalyst between groups and agencies . . . people will join together in areas they see value in!" If the elm succumbs to construction damage, the story still has a happy ending. One person, motivated, patient, and inquisitive can create change.

The story is not over yet. George is currently working on a proposal for a Street Tree Commission for New Castle County. He hopes *Tree Spree* will continue, rotating from park to park within the New Castle County park system, because the streets near his home will be torn up for the next few years.

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Kathleen Mills is a horticulturist for the Pennsylvania Horticultural Society.

For More Information

Elm Research Institute
Elm Street
Harrisville, NH 03450
1-800-FOR-ELMS

GARDEN ART:
Sculpture Created from Recycled Metal

by Judith Simpson

photo supplied by Judith Simpson



27

A visit to one of the country's finer sculpture gardens leads to do-it-yourself sculpture in a private landscape project.

Because visiting gardens designed by others often inspires my own landscape design work, in October 1990 I joined a bus tour to see several New York gardens. Our final stop on the trip, sponsored by the Philadelphia-based Landscape Design Network, led to a dramatic change in my garden and in my life.

The 168-acre Donald M. Kendall Sculpture Garden, located at PepsiCo headquarters in Purchase, N.Y., inspired the transformation. Originally designed by Edward Durrell Stone, Jr., the garden spreads over sweeping lawns and courtyards. The famous landscaper, the late Russell Page, extended the gardens in 1990.

As I toured the garden, I admired the synthesis of the landscape and sculptures. Page related the plantings to the sculpture so well that the whole environment is a triumphant art form. Page was an earthly jeweler placing each "gem" in its perfect setting.

I was especially inspired by three sculptures: Louise Nevelson's Celebration II; Kenneth Snelson's Mozart II; and Judith Brown's Caryatids.

Following a trip to Greece, artist Judith Brown sculpted Caryatids, her version of a Greek ruin, using found automobile parts, adding modern humor to classic design at the Donald M. Kendall Sculpture Garden, Pepsico Hq., Purchase, N.Y. Author Judith Simpson lends herself to measure the scale of the work that helped inspire her enthusiasm for creating her own welded sculpture.

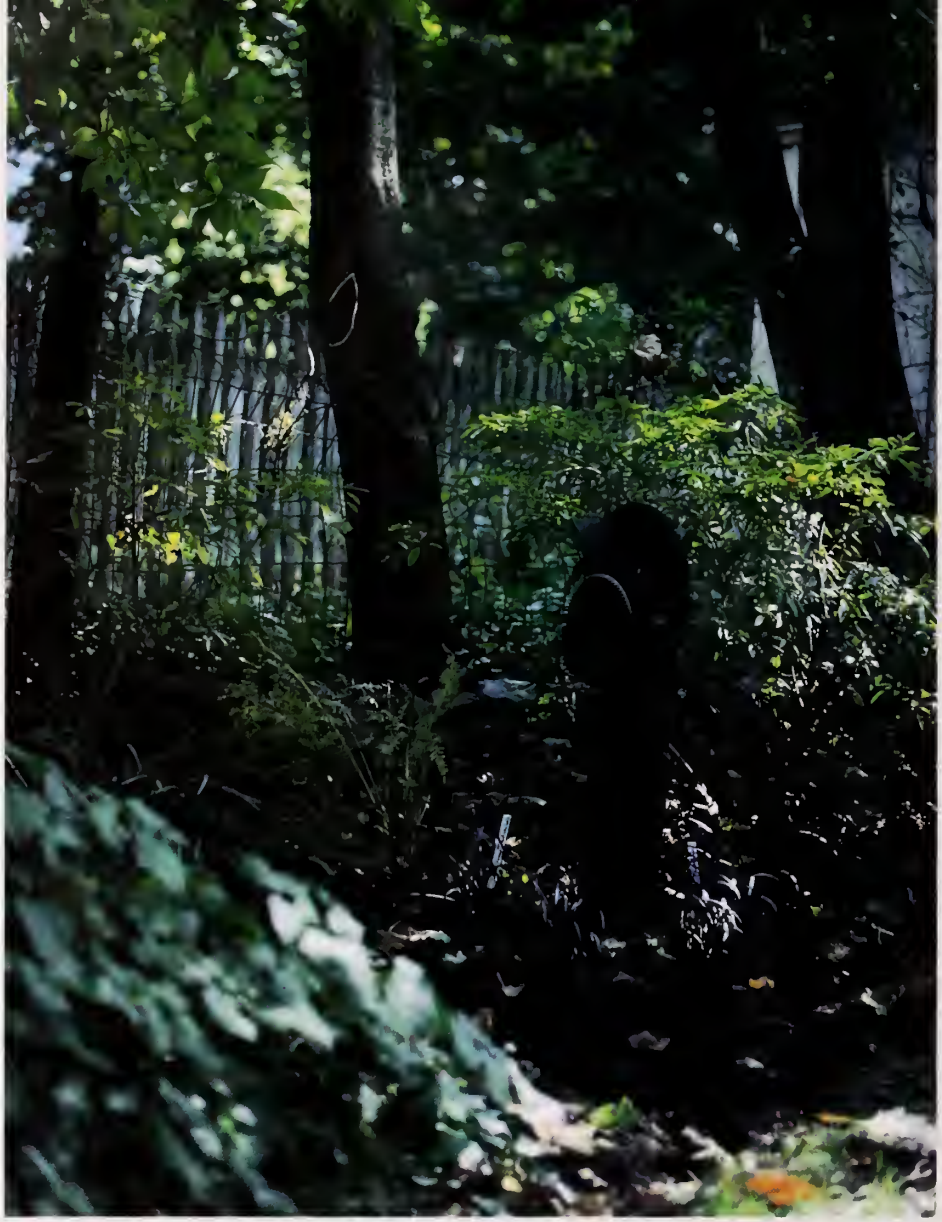


photo by Judith Simpson

Hidden from the patio by a hedge, After Louise created by the author Judith Simpson, is painted black just so she can use the wonderful ebony grass as a groundcover. One friend, unfamiliar with *Ophiopogon*, asked if Simpson had painted the grass as well.

Stylistically similar to many of her other works, Nevelson's large, black sculpture takes on a fuller, more dramatic character when set in its groundcover bed of ebony grass *(Ophiopogon planiscapus* 'Nigrescens'). Closer to home, Nevelson's Atmosphere and Environment XII sits at the west entrance of the Philadelphia Museum of Art.

Snelson's Mozart II is a wide and open work of stainless steel wire and tubing. It occupies the top of a slope orchestrated with rose of sharon *(Hibiscus syriacus),* pygmy bamboo *(Arundinaria pygmaea),* potentilla *(P. alba),* 'Blue Rug' juniper *(Juniperus horizonitalis* 'Blue Rug') and nootka cyprus *(Chamaecyparis nootkatensis).* His Needle Tower, a work done in a similar style, resides in the garden of the Hirshhorn Museum & Sculpture Garden in Washington, D.C.

The humorous Caryatids, a group of three columns shaped as women, owes thanks to the aid of old automobile parts. Not specifically landscaped, the work looks from a distance like an ancient ruin.

After seeing the Kendall garden, I was filled with desire to join my own landscaping with sculpture. My interest accelerated when Leon Sitarchuk, a Philadelphia sculptor, urged me to view as much sculpture as possible. "You only like what you know," he said. I set off to visit such sites as the Storm King Art Center, Noguchi Museum, Hirshhorn Museum and Baltimore Art Museum.

I also enrolled in Sitarchuk's sculpture class. At first I worked in clay, but welding sparked my imagination. I was familiar with the work of Julio Gonzales, Pablo Picasso, David Smith, and other iron sculptors and appreciated their art. I created my first garden sculpture less than a year after my PepsiCo pilgrimage.

Junk inspires

Because I work in scrap metal, gathering the bones of these pieces at a local scrap yard is a major part of my creative process. Many pieces of "junk" hold an immediate emotional appeal and their form often suggests a sculpture to me.

But creating the sculpture is only part of the art form. My work isn't complete until I place it in the garden that surrounds my turn-of-the-century three-story stone house. The garden is outlined by a high canopy of old shade trees, and their height imparts a spaciousness to the small (50 ft. x 135 ft.) lot. One neighbor's home is set far back on his lot, which also helps my garden look bigger.

Several of my sculptures have been designed for specific sites (i.e., Tree Angle rests high in the opening of a double-trunked maple; Flag Holder, produced from

How does my 50-foot lot accommodate inspiration that came from a 160-acre garden?

old farm implements, sits on the front porch; Path of Destruction fills a spot inadvertently created by a fallen limb). Most works present more challenge to find their site. Some are seasonally exciting; e.g., Sprout and Little Sprout set amidst a bed of snow crocus in February. Others relate to the structure of trees or shrubs near them, as Forever Fountain having the same sweeping arc as a cutleaf Japanese maple in front of it.

Two years ago I would have considered my garden complete. Today, I can't imagine it without sculptures for they add structure and energy to the garden.

How does my 50-foot lot accommodate inspiration that came from a 160-acre garden? First, the sculpture is, of course, on a smaller scale — nothing is more than eight feet tall. Second, I designed the garden to have hidden, unexpected areas so the art doesn't come at you all at once.

Combining landscaping and sculpture has put a lot of zing into my garden and my life. My sculptures are fun; I like to surprise visitors and add levity to their garden experience.

One horticultural friend pleased me when she toured my garden and said, "You and Russell Page would have really hit it off." I liked that comment, for I was inspired by his work, and I hope others enjoy mine.

•

Although a trained engineer, Judith Simpson has made a career in landscaping (Simpson, Jackson & Snee) over the last 12 years. Simpson lives in Ambler, Pa., and loves to travel to see gardens everywhere. She studied welding sculptures at Cheltenham Arts Center.

photos by Judith Simpson





Top left: Created out of stove pieces that Judith Simpson found while landscaping the garden, Aged Stove graces the deck and is juxtaposed with house plants during the summer. **Top right**: Duck Pond, a combination of thick blue glass and cut steel suggests a row of ducks near an area with a grouping of blue flowers *(Brunnera, Campanula carpatica, Pulmonaria).* **Bottom left**: Suspended from a wooden fence, Have a Seat offers a whimsical welcome utilizing an oblique frame of a metal chair, a teasing but impossible perch for the weary gardener. **Bottom right**: Enveloped by a large *Viburnum carlesii* near its spot on the mossy patio, Garden Work culminates Judith Simpson's yearlong desire to combine landscape and her own sculpture.





Site Design after the Fact

by Linda Corson

A landscape architect finds solutions to challenges on a site that has evolved through several incarnations over two centuries.

The most successful designs in residential landscape architecture occur when the site and the locations of the structures on it are planned as a unit. The initial planning can prevent serious mistakes some of which require expensive corrections: i.e., inadequate solar exposure; poor drainage; unattractive, inefficient driveways added as afterthoughts; and shade-shrouded swimming pools.

Problem A:

I worked on a project recently where the overall problem was to rearrange an existing site to accommodate a major residential architectural remodeling. Originally, the main house had been an 18th century inn with the front entrance door opening onto a central hall with rooms on either side (see B on plan). Over time, a side door (see A on plan) became the front entrance because it was closer to the driveway, i.e., 20 feet away. The current owners wanted to encourage visitors to use the restored front entrance (B on plan) and discourage the use of the side door as an entrance. An evergreen shrub and tree border (see C on plan) made the design more difficult as it obscured a direct view of the restored front entrance from the drive; the owners liked the visual buffer it provided between the house and the driveway, consequently, removal was not an option.

Solution:

Redesign the driveway to include a service parking area/turnaround and a separate visitor parking area, edged in Belgian block, adjacent to a wide stone entrance landing at the beginning of a new "old" stone walk leading through the evergreen shrub border to the front door. A few mature rhododendrons were relocated to lay the walk, and spring flowering bulbs,

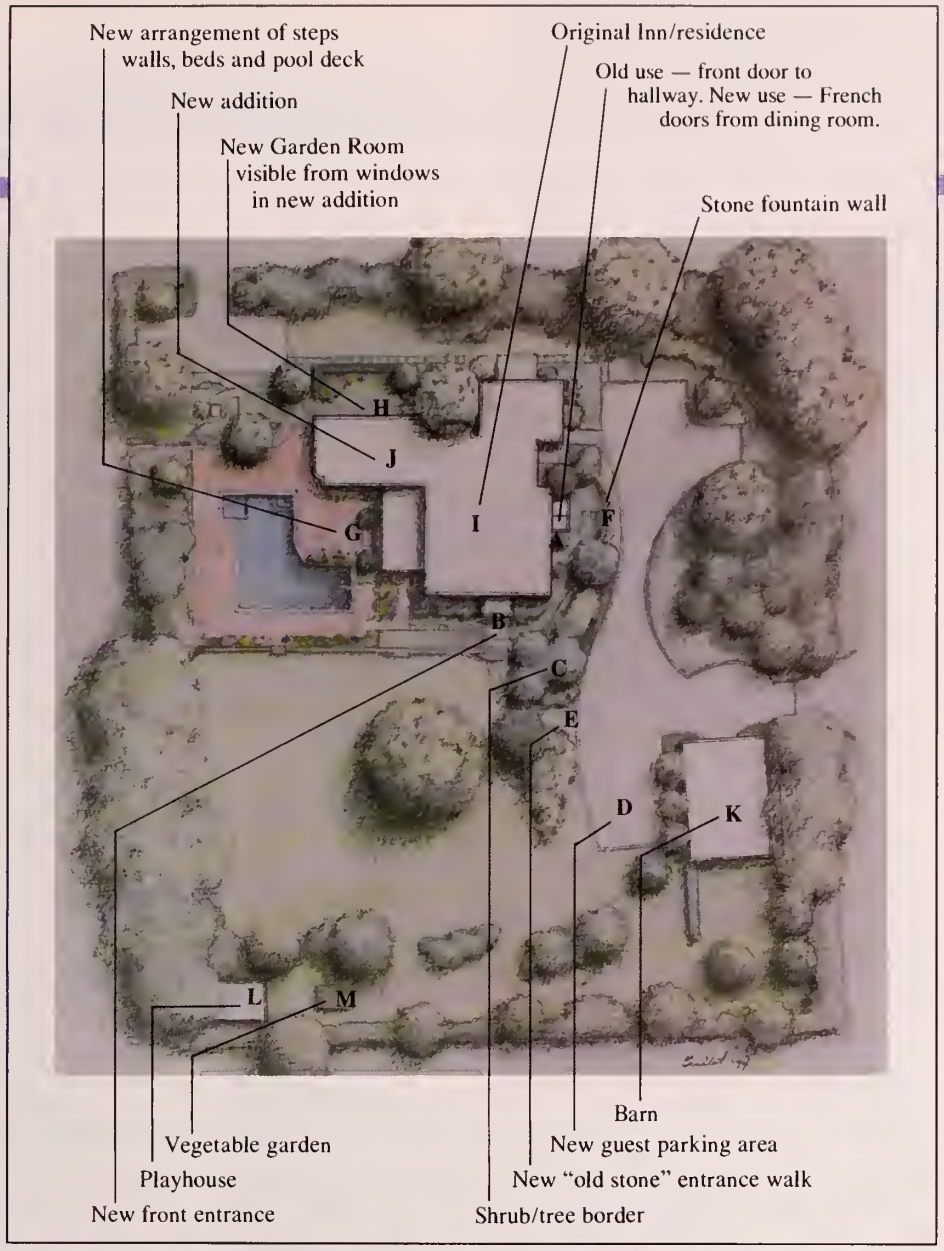


photos by Linda Corson

A1. Dining room side door: until recently these french doors were the front doors. They now open onto a fountain wall (see fragment of wall on left) and a small courtyard. The wall and courtyard were built to redirect foot traffic to the new front door.



A2. The newly installed fountain wall screens the driveway from the dining room. *Styrax japonica* and 'Blue Princess' holly in left foreground. *Parthenocissus tricuspidata* planted on the reverse side of the wall will climb over and soften the outline of the wall this year.



plan drawn by P. Guillot



A3. Restored front door. The old front door with the fountain wall and service driveway is to the right. The guests' parking is now at the base of the path leading to the front door. The swimming pool area is to the left.

low evergreen shrubs and ground cover were chosen to blend in with the established shrub border as if they had always been there. Lighting along the walk and on the most interesting trees highlights the entrance at night.

To prevent visitors from entering the house through the side door (A on plan), we decided to use a screen. Plants alone seemed insubstantial and wood requires periodic painting. After much discussion, we designed a curved, stone wall with a fountain and shelves for the space (F on plan). The shelves consist of slabs of stone that project from the wall at different levels and provide support for large pots of flowering annuals. The wall blocks the view of the cars, provides a refreshing sound (from the fountain), color (from the plants on the shelves), repeats the stone used in the building foundation. It creates a small courtyard for the old side entrance and room that has been remodeled into a dining room with French doors and becomes an extension of the interior. *Kalmia latifolia, Pieris japonica, Ilex meserveae* 'Blue Princess' and *Parthenocissus triscupidata* further obscure the old entrance and soften the appearance of the stone wall.

Problem B:

Coordinate the relationships between the existing house, a proposed addition (creating an L shape with the house; see J on plan) and the swimming pool. The addition and pool were on a level 4 feet below the house. The size, shape, choice of materials and location of the pool decking, steps, walls, fence lines and planting beds were some of the decisions to be made.

Solution:

Remove and redesign the exposed aggregate pool decking because the concrete around the stones had worn over the years and made it uncomfortable to walk on in bare feet. An antique brick in a basket-weave pattern reminiscent of the brick on the porch, replaced the concrete. Two-by two-foot-square flagstones were set in a random pattern among the brick to add interest to the enlarged decking area and repeat the stone used in the steps to the addition. Stone steps and retaining walls were redesigned and located to maximize the sitting area space and a new fence line was planned to keep the resident toddler out of the pool area. The fence was made from pieces salvaged from the old Walnut Street bridge by a friend of the owners.



photos by Linda Corson

B1

B1. Front door to right. Stone steps and retaining wall were redesigned between the porch and the new addition to the house (section behind chairs and table). Iron fence across porch was salvaged from Philadelphia's Walnut Street Bridge. Basketweave brick area replaces uncomfortable and worn stones alongside the pool.

B2. An herb garden was planted along the upper level (left in basketweave area); clematis, perovskia, lythrum, stachys, rudbeckia, coreopsis, and *Ceratostigma plumbaginoides* provide color around the pool in summer.

B3. Basketweave surrounding pool was extended to perimeter of recently planted shade garden under the Japanese maple: variegated ajuga, galium, mertensia and hosta. Low retaining wall (left) was added to change level of bed.

Planting beds around the pool decking visually break up the hard surface with colors and textures that change throughout the year. The plants themselves were chosen to produce a long period of summer bloom; seed heads and evergreen color during the winter; spring flowering bulbs; and herbs for the kitchen. Survival in the stressful environment of reflected sun/heat from the surrounding paving materials in some places and excessive shade in others was also a consideration.



B2



B3

Problem C:

The architects revised their plans and added two large windows on the non-pool side of the addition (see J on plan) revealing a small slope leading up to an unsightly hodgepodge of weeds, Norway maple volunteer seedlings, and the back side of a dilapidated stockade fence.

Solution:

By regrading, adding a low retaining wall, perennial bed, a 'Merrill' magnolia and dwarf pines in front of an evergreen hedge of *Taxus* x *media* 'Hatfield' for background, an outdoor room was created for this newly exposed side of the property. The hedge was laid out to form a rectangular space in scale with the interior room and become a visual extension of it (see H on plan).

Eventually, the rest of the property was designed. Having said that the best relationships occur when the site and building designs are done as a unit, I have come to the conclusion, after completing this project, that site design can be done successfully "after the fact."

●

Linda Corson is a registered landscape architect, a member of the American Society of Landscape Architects and president of Linda Corson Landscape Design. She has designed sites in the Delaware Valley for the past 15 years. The plan for the inn/residence in this article won a first and second prize in the 1993 PHS Creative Garden Design Contest and is scheduled to be on the 1995 PHS Main Line garden tour.



C1

C1. New windows on the addition to the house overlooked a weedy patch and an old fence. The weeds were removed and an evergreen hedge and perennial bed of ornamental grasses, as well as a Merrill magnolia now screen the dilapidated fence and create a garden room.

Letters to the Editor

LETTER TO THE EDITOR

Books that Change the Way We Garden

I read and enjoyed "Books that Change the Way We Garden" by Richard Bitner (Nov. *Green Scene,* 1993). I have reread this article several times, but Ms. Pontecorvo's letter (May/June 1994) carries a mention about the author Richardson Wright.

Wright was a "real find" for me, too. I found his *Another Gardener's Bed-Book,* published in 1933, at a garden sale in Boston. Later, I was able to purchase a reprint of *The Gardener's Day Book* (orig. pub. 1938) by PAJ Publications brought out in 1989. Wright wrote seven or more garden books as well as several others on related subjects. He was the editor of *House & Garden* for more than 30 years.

His style is witty; he is informed and literate. His books contain history, lore, fact and the ability to "speak to you." I have many garden books and Wright's books are among my all-time favorites. I have been searching for Ms. Pontecorvo's "find" *[The Practical Book of Outdoor Flowers,* by Richardson Wright, J.P. Lippincott, 1924*]* and the others as well. This author should not be forgotten; I have learned more from him than any current writer of essay-type works, except perhaps Henry Mitchell.

The series of books on garden subjects by Beverly Nichols are also ones I keep handy. Lighter and of their time (1930-1950) they also address both heart and mind of the gardener and are therefore satisfying (some in reprint).*

Please do more with books. Garden books have been, for me, as great a pleasure as my garden.

Claire Peplowski
East Nassau, N.Y.

*The Pennsylvania Horticultural Society Library has several of Beverly Nichols's books available for members' use.



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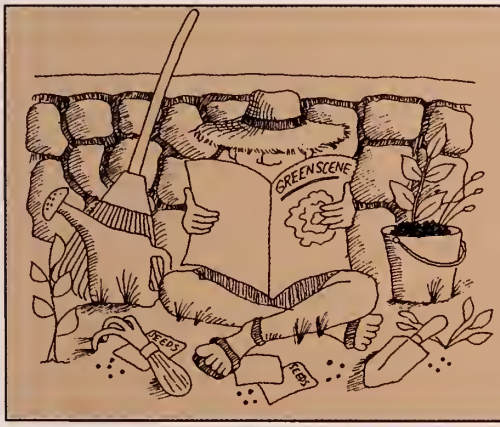
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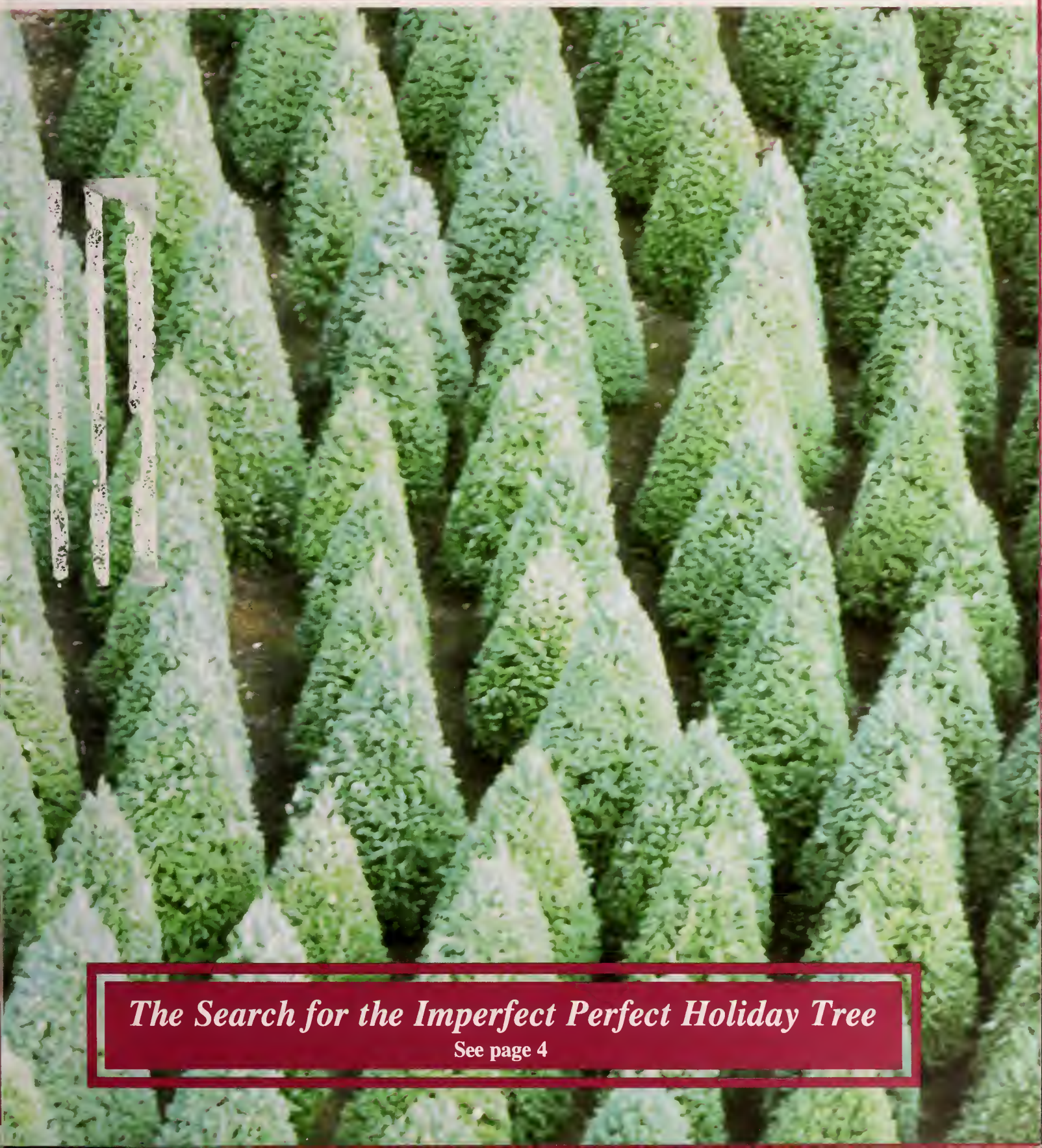
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photo by Ira Beckoff

GREEN SCENE

18 27

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The Search for the Imperfect Perfect Holiday Tree

See page 4



8.

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in this issue

3. The Charlie Brown Christmas Trees; Art Nouveau Trellises; and Three Generations of One Family Create for this Issue of *Green Scene*
Jean Byrne

4. A New Yorker Searches for the Most Imperfect Perfect Christmas Tree
Joe Kerwin

8. In the Garden: A Victorian Christmas
Kathleen A. Mills

11. Indoor Microclimates
Duane Campbell

15. Trellises: Garden Art That Does Double Duty
Douglas Alderfer

18. Invaders in the Garden
Betty Barr Mackey

22. Garden Passion
William Guthrie Hengst

25. Pennsylvania Horticultural Society, the Poinsettia and a New Holiday Collectible

26. Gardening for Forever . . . Well, for as Long as You Live
Toni Brinton

28. Vanilla, Our Most Popular Flavor
L. Wilbur Zimmerman

30. Black Gold: Large Scale Composting
Patricia Merritt

33. Caution to Readers

33. The Plantfinder

34. Classified Advertisements

Volume 23, Number 2 November/December 1994

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The Charlie Brown Christmas Trees; Art Nouveau Trellises; and Three Generations of One Family Create for this Issue of *Green Scene*

by Jean Byrne

When Joe Kerwin worked at the Pennsylvania Horticultural Society his searches for the exactly right Christmas tree for his Pine Street apartment were all-engrossing. Joe started looking very early and went on foot for miles within the radius of his apartment to pursue the hunt. And he preached the gospel of wild, loose balsam fir trees for his friends' homes as well. After he moved to New York the search continued for what a colleague called Joe's "Charlie Brown trees."

As one who has probably put up two trees in my lifetime, I was astonished at people's passionate preferences for either sheared or nonsheared Christmas trees and the heated hunt for a specific kind of needle, shape, etc.; my anxieties are reserved for presents I'm supposed to buy and for whom.

Obviously the preferences are aesthetic *and* visceral and I guess I can understand Joe's yearning for the good old magical bygone Christmas trees of his childhood that he expresses on page 5. Kerwin insists that the unsheared firs are coming back. Check it out this holiday.

Douglas Aldefer appears in these pages for the first time with an article about the trellises he creates. His opening sentence particularly caught my eye — he talks about his dream of a garden with grasses and other plants that will create a kind of music, a wonderful way of engaging yet another sense in the garden.

Doug's reference reminded me of the film Blow Up made by the Italian director Antonioni in Great Britain in 1966. Antonioni, who does not use music as many other directors do to heighten emotional effects in films, used instead the rustling of trees' leaves in a park to sharpen the mood surrounding a murder there. The sound was haunting, and since then I find myself consciously responding to the tree music on walks through woods or reacting as though to music to the furious rustling of the trees outside my windows just before a storm.

Time certainly sneaks up on us: Wilbur Zimmerman has been on the Publications Committee since before the first issue of *Green Scene* (September 1971), and he adds an 11th story to his credits here with his story about vanilla. What's delightful to us is that his daughter Toni Brinton's story in this issue about old gardeners who just spade away (her 11th also!) is illustrated by her daughter Gail Brinton Bryan. So now we have three generations of that family represented in this issue.

Gail is no novice either; in 1981 when she was managing editor of *Debrett's Peerage* in London, she produced two best-sellers: *Debrett's Book of the Royal Wedding* and *Debrett's Etiquette and Modern Manners.* In July of that year, the Philadelphia *Inquirer* published a story about Gail entitled: "The Royal Wedding Is — Gasp! — by a Yankee from Pennsylvania." Gail now lives in New Jersey with her family, and clearly her creative skills are alive and well.

photo by Frost Lighting



This 35-ft. tree was one of the earlier ones selected by the author for the New York Botanical Holiday exhibition in The Enid A. Haupt Conservatory. At present, the Conservatory is being renovated and is scheduled to reopen in late '96.

A New Yorker Searches for the Most Imperfect Perfect Christmas Tree

by Joe Kerwin

One of my fondest memories from childhood is trudging through the quiet snow-covered Brooklyn streets with my father, brother and sisters, with our newly purchased Christmas tree in hand. This ritual was usually performed the weekend before the holiday, and the tree in tow was usually a sparse, wild forest-grown balsam fir. We stored the tree in the shade on the roof of our four-story apartment house until late Christmas Eve when Santa brought it down our sealed up fireplace. Santa and his helper (Mom) decorated the tree and graced the base with bicycles, toys, clothes, and other wrapped gifts.

The first order of business on Christmas morning was to make sure that St. Nick thought we were good enough children to leave a decorated tree and gifts that befitted us. I'd peer down the dark hallway and search for the silhouette of the tree's branches in front of the living room window with its ornaments hanging gracefully from its limbs. After the sighting I'd rush to arouse the other children, and we'd dash to awaken our parents so they could light the tree and let us open our gifts.

Time passed and we kids grew too old for Santa, and our parents, ready to relinquish the all-nighter, allowed us more participation in the festivity. How that tree ever made it up in our living room is beyond me. Murphy's law ruled each and every year. We started out to select the tree; no one could agree on the same tree. Here you are in the cold lot viewing hundreds of trees that look the same with their branches all bunched up because they were shipped in bundles. After a while someone would relent, and we'd reach an agreement. On Christmas Eve the tree would make its way to the living room where it would be set up with what we hoped was its best side forward.

The tree was always too tall for the living room. We'd cut off part of its base and snip off its main leader. The tree no longer fit into its stand, and the trunk had to be whittled down. As for the star that adorned the tree's top, it no longer fit and the newly created stump was shaved down to size. Then the tree would be secured to the living room walls to keep it from falling over with the installation of the lights, ornaments, and tinsel.

The ornaments were the fun part; the larger ones were hung on the inner branches and used to fill in the gaps while the smaller ones hung closer to the tip of the branches because too much weight would bend the branch. They were also fun because they would break when you dropped them, but not as much fun as the lights, which popped when you broke them. Last but not least we draped the tree in tinsel (which was lead until the 1960s) giving the appearance of icicles hanging from the tips of each branch . . . if properly applied. As teenagers, we did not have the patience to place meticulously the strands of tinsel on an eight-foot tree, so our parents reapplied the tinsel. The tree then was considered the most beautiful we'd ever had. Once it was completed and lit we were all caught up in its magical spell.

The artificial tree appears

When we grew up and left home our parents decided it was too much to have a live tree just for the two of them, so after one Christmas they bought an artificial tree made of vinyl. Once assembled the tree looked like a perfectly formed Fraser fir and when decorated and viewed from a distance did not look so bad. At that point in my life I had begun to work in public horticulture and used live trees to assemble our seasonal exhibitions. Since most preparations for the holidays happen before Thanksgiving I usually had my fill of the season by mid-December, so I never had a tree of my own, and conceded my parents their easy out on tradition.

When I started working at the New York Botanical Garden one of my responsibilities was to locate a 30-foot plus evergreen for our holiday exhibition's central feature in the Conservatory. I took this opportunity to search for the tree of my past and with assistance was able to find a grower in Plattsburgh, N.Y. Then one Christmas Eve at work a colleague gave me a tree that was no more than four feet tall. It was a wild-grown balsam fir donated to the Garden by a local nurseryman to be used by the garden staff as mulch in the perennial beds. From the mulch pile it traveled home with me via the New York City subway system. I did get the tree home safe and sound and strung a few strands of white lights from top to bottom. This started me on a search to find and recreate the tree I remembered from my childhood. It had been almost 15 years since I had gone out into the streets of New York to search at corner lots for a Christmas tree and, boy, had things changed.

The tree scene shifts

Back in 1960, 75% or 23.4 million of the Christmas trees produced in the United States came from (primarily privately owned) wild or natural stands, while the remaining 25% or 8 million trees came from farms or plantations. In 1990 the



photo by National Christmas Tree Association

Christmas trees being harvested; for each tree cut, two to three new trees are planted.

opposite was true: 90% or 31.9 million trees came from farms, and the remaining 10% or 3.5 million came from wild or natural stands. I was surprised by the modest 4 million increase in tree production over the last three decades considering the U.S. population increased from 112,885,178 to 249,900,000 over this same period.

I understand that the bulk of the Christmas tree business during these years has gone to the artificial tree industry. That's a whole other story. So my parents weren't the only turncoats to go to vinyl, but I still don't like artificial trees.

I purchased a 7-foot unsheared balsam for $15. Elated about my discovery, I returned a couple of days later for a second tree, for my garden. I was shocked to find that the price had doubled.

In the last 30 years the balsam fir production has decreased by about half from 16% or 5.1 million trees to 8% or 2.8 million.

The production of wild or bundled trees has also reached a low of approximately 300,000 trees, due to a process called shearing, practiced by nearly all Christmas tree farmers. Shearing transforms a wild tree with its open, sparse, natural look by trimming the top and limbs of the tree. Shearing controls the shape, increases the branches, fullness and thickness of the foliage. It also creates uniform spacing between branches. Shearing has been done since before the beginning of Christmas tree farming, in the mid-1940s. This practice took hold in the 1960s after consumers responded positively to some trial trees. People were willing to pay more for a fuller, well-defined tree with fewer defects. The grower also benefits from the process by producing a greater number of premium trees per acre. Trees such as scotch pine and Douglas fir respond well to shearing, which is partially responsible for their high production rating as Christmas trees. Shearing success creates a more efficient operation for growers and a higher quality product for the consumer.

I enjoy my annual search for the most imperfect perfect Christmas tree, the almost extinct unsheared balsam fir. Last year I started my search early and found a seller who was using unsheared balsams to lure customers to his stand with a sign: "Trees $10 and up." I purchased a 7-foot unsheared balsam for $15. Elated about my discovery, I returned a couple of days later for a

Christmas Tree Preferences Vary

The National Christmas Tree Association Inc. says these trees and a half dozen other species of pine, fir, spruce and cedar are grown as Christmas trees in North America. Consumer preference and individual taste vary according to several factors, including area of residence, family tradition and aesthetics.



White Pine



White Spruce



Fraser Fir



Colorado Blue Spruce



Concolor Fir



Douglas Fir



Balsam Fir



Scotch Pine

photos by National Christmas Tree Association

photos by National Christmas Tree Association



Shearing is the art of shaping a tree. It removes imperfections and produces a more desirable product.

second tree, for my garden. I was shocked to find that the price had doubled. When I asked why, the salesmen explained the trees were more popular than they had originally thought. The National Christmas Tree Association confirmed this and explained that while it is still a relatively small percentage of trees, the trend over the last couple of years has been to smaller needled varieties with space between the branches.

The qualities of the unsheared balsam that I cherish most are its natural pyramidal form, with its openness that challenges any designers to create harmony with finely decorated glass ornaments; its evergreen fragrance, which fills an entire room or small apartment like mine with the aroma of a forest on a cold, quiet, dark winter's day; its relatively easy care — a large tree stand and a drink of water daily, which will help prevent messy needle loss. My tree, described by friends and foes as traditional, and even old-fashioned, steals its glory from its heirloom ornaments and colored lights purchased from the local flea market. The only aspect missing from yesteryear is the tinsel, which is now made from mylar, which is extremely light and doesn't have the sturdy icicle look the old lead stuff had.

Since my apartment is at street level I sometimes leave the shades open around the holidays to show off the tree. Last year while sitting on the sofa out of view I heard a group of young people passing proclaim "What an ugly tree." Not two seconds later the group broke into a chorus of "O Christmas Tree, O Christmas Tree." Through the young people's eyes the tree seemed ugly, but it inspired them to sing, and what better compliment could one ask for.

U.S. Christmas Tree Production

1960

Tree	Number Produced	% of Prod.
Douglas Fir	7,329,172	23%
Scotch Pine	5,434,050	17%
Balsam Fir	5,142,224	16%
Norway & Red Pine	3,222,207	10%
Eastern Red Cedar	2,472,909	8%
Others	7,760,950	26%

Total Number of Christmas Trees Produced 31,361,512

75% (21,361,512) of the trees came from wild or natural stands, while 25% (8,000,000) came from farms or plantations.

United States population 112,885,178

1990

Tree	Number Produced	% of Prod.
Scotch Pine	12,744,000	36%
Douglas Fir	7,080,000	20%
White Pine	2,832,000	8%
Balsam Fir	2,832,000	8%
Fraser Fir	2,478,000	7%
Others	7,434,000	21%

Total Number of Christmas Trees Produced 35,400,000

10% (3,500,000) of the trees came from wild or natural stands, while 90% (35,400,000) came from farms or plantations.

United States population 249,900,000

•

Joe Kerwin is the manager of the Enid A. Haupt Conservatory (which is under renovation at the present time) of the New York Botanical Garden. Joe is also an unsheared balsam Christmas tree enthusiast.

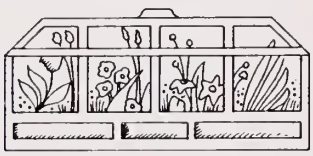
A Victorian Christmas

by Kathleen A. Mills

What was Christmas like without the poinsettia, before the tree? It may be hard to imagine a time like that, but the early Victorians managed. They used flowering plants to decorate their homes, especially during the winter months. Gardening was elevated to a religious experience, and forcing plants was akin to an epiphany. " . . . A few flowers in the window, a border neatly trimmed . . . a vine trailing over the door . . . are the best possible proof that the dwellers in that house are, whether rich or poor, capable of rising above the troubles and cares of life, to the higher and better regions of Nature and God." (-R. Morris Copeland)*

As I began to investigate the Victorian era, I realized it was the golden age of rules. Books of rules on how to act in public, dress, keep house, cook, and garden were published in splendid abundance. It should come as no surprise that there were rules on how to decorate for December 25th as well. In the late Victorian period the tree and the poinsettia were embraced and elevated to decorating *musts,* creating the holiday we know today.

Before that time, plants were forced into bloom for sheer enjoyment. Whether one had a conservatory, a Wardian case or a



Wardian Case

windowsill, blooming plants were part of decorating for the holidays. "Flowers are so universally loved, and accepted everywhere as necessities of the moral life, that whatever can be done to render their cultivation easy, and to bring them to perfection in the vicinity of, or within the household, must be regarded as a benefaction." (-Edward Sprague Rand, Jr.) Shrubs forced into flower included daphne, camellia, and azalea. (D** - *Daphne odora,* C - *Camellia japonica).* Violets, pansies and primula were among the favorite perennials to force for the winter (V - *Viola odorata,* P - *Primula veris).* Why — even the easter lily got its start adorning homes at Christmas time!

*See book list for full citation.

Celebrate a Victorian Christmas at Rockwood Museum

The Victorian Christmas celebration comes alive each year at Rockwood Museum, just north of Wilmington, Delaware. From November 22 through January 8, visit this example of Rural Gothic architecture where wreaths, garlands, poinsettias and lavishly decorated Christmas trees fill the house from bottom to top. In the conservatory period plants show their best winter face alongside flowering plants of the season.

During the holiday season Rockwood is open: Tuesday through Sunday for guided tours (11 am to 4 pm) Admission is $6 Adults; $5 Seniors; $2 Children.

Special evening tours December 15th through the 18th are $10 per person and include a Victorian play and refreshments. Reservations required; call for times.

On December 3, two Children's Workshops are scheduled at 10 am & 2 pm.

The gift shop, open when the museum is open, carries a fine offering of Victorian tree ornaments.

Any time of year the grounds are a delight to visit. A classic example of gardenesque landscape design, Rockwood maintains many fine old specimen trees including *Araucaria araucana* (monkey-puzzle tree). Annuals, perennials and flowering shrubs abound in season. There is even a Ha-Ha wall! Acres of woods brimming with wildlife and native plants await your discovery as you tour the grounds.

Hours: Rockwood Museum is open from 11 am to 4 pm, Tuesday through Saturday for guided tours. Groups of 10 or more require reservations. Admission is $5 Adults, $4 Seniors, $1 Children.

A self-guided tour of the grounds is available for free. Rockwood Museum is owned and operated by New Castle County and lovingly attended to by its members, The Friends of Rockwood.

Phone: (302) 761-4340.

Shrubs

Shrubs dug from the garden in autumn were brought in to be forced for winter bloom. *Deutzia gracilis, Spiraea prunifolia* and *Weigela rosea* were forced as follows: "Any of our hardy flowering shrubs may be forced for the conservatory with very little trouble. Late in the autumn, before the ground freezes, take up plants of the desired kinds with a ball of earth, and either pot them, or set them away in a cool, dry cellar. When wanted for flower, bring them into the light and heat of the conservatory, potting those put into the cellar; water freely, and in a few weeks they will be a mass of bloom." (-Edward Sprague Rand, Jr.)

Perennials & annuals

Depending on the level of one's growing expertise and the facilities available, many types of flowers could be found blooming indoors at Christmas: *Bouvardia ternifolia* (B)**, *Gilia capitata* (G), *Heliotropium arborescens* (T), *Hermannia verticillata* (H), *Nierembergia,* orchids, *Polianthes tuberosa* (P), and *Stevia rebaudiana* (S).

During the late 19th Century the cut flower industry expanded rapidly. At Christmas everyone indulged in cut flowers and

Why — even the easter lily got its start adorning homes at Christmas time!

greens to decorate their homes. Red roses and carnations, as many as you could afford, were proudly displayed on the mantle or dinner table. Cut flowers were readily available in the cities and Philadelphia led with greenhouse production. "The variety of plants used for this purpose is not so extensive as might be supposed; the following, compromising the leading sorts, are named in the order of their value and importance for cut flowers. 1st. Camellias, Carnations, Violets; 2nd. Roses, Tuberoses, Double Primroses; 3rd. Bouvardias, Stevias, Eupatorium; 4th. Heliotropes, Poinsettias, Euphorbia; 5th. Stock Gillies, Begonia, Fucshia . . . " (-Peter Henderson)

**Plant letter codes correspond to those listed with sources in box.

continued

photos courtesy of Rockwood Museum, by Carson T. Zullinger



Holiday Greens & Their Symbolism

Bay: Power

Holly - thorn berries: Blood of Christ

Ivy: Protect against drunkenness

Laurel: Cleanser/Protector

Mistletoe: Promote fertility and peace

Rosemary: Friendship and remembrance

- Celia McInnes
An English Christmas





At top: Rockwood Museum sits among a splendid selection of old specimen trees on 72 acres. Sixty-six acres of forest, including many of old growth forest, are teeming with wildlife waiting to be discovered. Six acres are maintained around the house with ornamental plantings. **Bottom right**: Each year volunteers decorate Rockwood as it would have been decorated in the late Victorian era. Here in the parlor, a live tree dressed with all the trimmings shelters authentic children's gifts. **Bottom left**: The conservatory provided a warm restful spot for the Victorian family to relax and commune with nature on a cold winter day. Along with poinsettias *(Euphorbia pulcherrima)*, paperwhites *(Narcissus* spp.), Jerusalem cherries *(Solanum pseudocapsicum)* and ornamental peppers *(Capsicum* sp.) adorn the other period plants in the conservatory at Rockwood.





A Rockwood Christmas at the Pennsylvania Horticultural Society

From December 1 through December 23 visit *A Rockwood Christmas* at PHS headquarters, 325 Walnut Street, Philadelphia, Pa. (215-625-8250). We'll be open Monday - Friday from 9 am - 5 pm and decorated for the holidays in the Victorian manner, compliments of Rockwood Museum, Wilmington, Delaware. Admission is free.

Cut greens were used to decorate mantles, windows, ceilings and staircases and each had its own special meaning. Garlands strung with pine or lycopodium, wreaths of balsam or laurel and mistletoe dangling from kissing balls each helped celebrate the Victorian Christmas. Holly was prized and each piece was carefully placed over paintings, mirrors or the fireplace for all visitors to see.

The Christmas tree

The Christmas tree as we know it today was popularized after an 1850 engraving of Queen Victoria, Prince Albert and family appeared with their tree in *Godey's Ladies Book* (another one of those *rule* books). First displayed on tables, as the early German immigrants had done since the 1700s, soon full-sized trees, in crocks or tubs, became the standard of the season. Victorians were sure more was better! Ornaments too became increasingly intricate and gaudy as the years passed.

Douglas fir and balsam were often selected to be dressed with an array of ornaments. "Children were urged to create paper chains or thread berries into garlands. Paper roses were intermixed with stars, hearts, and other designs threaded on long strands. Fairy figures added greatly to the tree; cornucopias of all kinds were made, to hold candy and nuts. Gilded walnuts and acorns formed into bunches added sparkle. . . The theme of the Victorian tree . . . was everything and more." (-Sunny O'Neil)

Through their perceived excesses, the Victorians developed many of the holiday traditions we practice today. From trees, to poinsettias and all the beautiful winter-blooming plants we now enjoy, the Victorian era left us a rich heritage of gardening and celebrating!

Books About Victorian Christmases and Gardening

* *American Gardens of the Nineteenth Century,* Ann Leighton, University of Massachusetts Press, Amherst, 1987.

Christmas Past, Robert Brenner, Schiffer Publishing, West Chester, PA, 1985.

* *The Christmas Tree Book,* Phillip V. Snyder, Penguin Books, New York, 1977.

* *Country Life: A Handbook of Agriculture, Horticulture and Landscape Gardening,* R. Morris Copeland, John P. Jewett & Company, Boston, 1859.

December 25th: The Joys of Christmas Past, Phillip V. Snyder, Dodd, Mead & Company, New York, 1985.

An English Christmas, Celia McInnes, Henry Holt & Company, New York, 1986.

* *The Florist's Manual,* H. Bourne, Monroe & Francis, Boston, 1830.

* *Flowers for the Parlor and Garden,* Edward Sprague Rand, Jr., Shepard & Gill, Boston, 1874.

* *The Gift Of Christmas Past: A Return to Victorian Traditions,* Sunny O'Neil, The American Association for State and Local History, Nashville, TN, 1989.

An Old Fashion Christmas in Illustration & Decoration, Clarence P. Hornung, ed., Dover Publications, Inc., New York, 1970.

* *Popular Flowers and How to Cultivate Them,* Edward Sprague Rand, Jr., J.E. Tilton & Company, Boston, 1870.

* *Practical Floriculture; A Guide to The Successful Cultivation of Florist's Plants for the Amateur and Professional Florist,* Peter Henderson, Orange Judd & Company, New York, 1869.

The Victorian Christmas Book, Anthony & Peter Miall, Treasure Press, London, 1978.

* Available in the PHS Library

The plants coded in this article can be purchased from the following outlets:

Camellia Forest Nursery 125 Carolina Forest Road Chapel Hill, NC 27516 919-967-5529	C
Forestfarm 990 Tetherow Road Williams, OR 97544 503-846-6963	D, R
Heirloom Garden Seeds P.O. Box 138 Guerneville, CA 95446 707-869-0967	G, R, V
Logee's Greenhouses 141 North Street Danielson, CT 06239 203-774-8083	B, C, H, S, T, V
Park Seed Cokesbury Road Greenwood, SC 29647 803-223-7333	G, P, T
The Flowery Branch P.O. Box 1330 Flowery Branch, GA 30542 Catalog - $2	R, T, V
The Fragrant Path P.O. Box 328 Fort Calhoun, NE 68023 Catalog - $1	T
Wayside Gardens 1 Garden Lane Hodges, SC 29695 800-845-1124	D, P, R
Woodlander's, Inc. 1128 Colleton Avenue Aiken, SC 29801 803-648-7522	C, D
Yucca Du Nursery P.O. Box 655 Waller, TX 77484 409-826-6363	B, S

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Kathleen Mills is a horticulturist for the Pennsylvania Horticultural Society.

Indoor Microclimates

The front porch, the back porch, the cellar bulkhead steps: all different zones, — they're all fair game for an array of plants.

by Duane Campbell

photo by Duane Campbell



The sun porch is at its best in September when the tenderest plants start migrating inside. By November even Harrison Ford would be hard pressed to fight his way across the room.

It was one of those bright and bitter February days as we walked through the vacant house, heated just enough to keep water flowing in the pipes. I shivered as I pulled brittle newspaper from the cracks in a door leading onto an unheated sun porch, stepped through and walked into June. Sun filled the coarsely finished room, boosting temperatures into the seventies. Though we didn't recognize it until later, the decision was made then and there.

That was six years ago. Since then I've explored every microclimate of this Victorian vernacular. (A Victorian vernacular is a house built while Queen Victoria reigned, but too common to have a named style; another term is "old house.") A quirky heating system and windows that either rattle or stick depending on the season give me a range of temperatures mimicking the homelands of a variety of plants.

A front porch — Zone 8

That original sun porch is Zone 8, plus or minus. Plus, because it doesn't actually freeze, and minus because it stays cool on overcast winter days, which is another way of saying most winter days. Nevertheless, it

continued



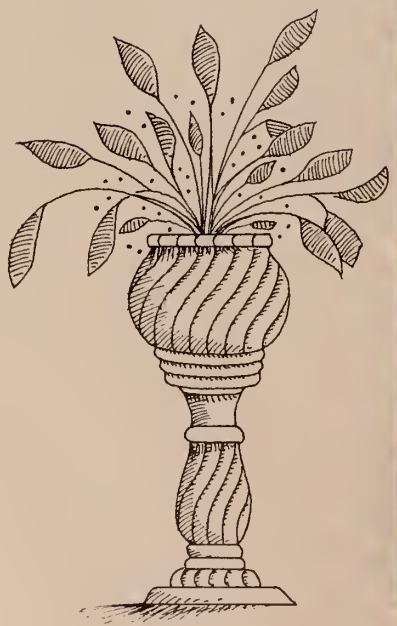
Above and at right: During the summer, prepositioned pots await a festive occasion on the sun porch. When company comes, plastic pots of annuals growing strong outside are plopped quickly into place.

Bottom right: *Crinodonna,* an evergreen relative of the much smaller amaryllis, is a September standout. It winters on the sun porch.



photos by Duane Campbell





is an appropriate home for many plants hardy up to Georgia. Two walls of windows facing southwest make it the warmest room in the house on a sunny winter afternoon. At night an open connecting door keeps the frost out. A more '90s type would call it solar heating and install a fan thermostatically controlled to move warm air back and forth, but an open door does the job.

Hibiscus bought in four-inch pots now fill tubs on that porch. An eight-foot pineapple guava guards the door and other subtropical trees and shrubs choke the room. Smaller pots sit on larger pots and line the windowsills. The cat once got lost in there for three days.

It's surprising how many plants we consider tender actually thrive in the chill. Geraniums, which grow soft and leggy in normal indoor temperatures, stay tough and compact. Succulents that lingered for years as green oddities are now flowering plants. Many rhizomatous begonias put the lie to their tropical heritage; it's obvious that they love the lower temperatures. And an orchid cactus, admittedly ugly for 50 weeks each year, in March bursts into a spectacle that brings strangers knocking on the front door, even strangers without Bibles.

Visitors are drawn instantly to this room, elbowing their way through the foliage to find a wicker chair, then pushing aside a lemon-laden branch of out-of-control jasmine to sit down. We felt the same when we moved in, gravitating at vespers to this unfinished space, once an open porch, closed in crudely like tens of thousands of them in the '20s. Though there was much to do in this house that had not seen even new wallpaper since President Truman, here was where we started.

It was easy and cheap. Two rolls of fern-patterned paper covered the upper half of the two interior walls, blending with the porch ceiling fortuitously painted fern green. Quarter-inch-thick wainscoting, painted white, went around the bottom. A ceiling fan replaced the bare bulb in the center of the room. Three hundred bucks, a couple days' work, and we had a cozy spot for both plants and people.

The back porch — Zone 9

Most of the people went away after dinner and coffee, but the plants stayed on and grew. Even if I never bought a new one (a laughable premise), plants that fit in the spring crowded in fall after a summer outside. Soon we were eyeing the open back porch off the kitchen. Rudimentary framing and patio door replacement panels, a fraction of the cost of real windows, soon gave us another space. We called it the Conservatory to avoid confusion, but it isn't really that pretentious.

Opened to the kitchen, the Conservatory gave me Zone 9 — Central Florida. Still cool at night, it was nonetheless balmier than the sun porch, and the southeast exposure warmed earlier in the morning. Now we had garden locations for both coffee and cocktails. Passion flowers that had sulked out front loved it, and a papaya was so grateful that it stopped dropping fruit with a midnight thump.

Hibiscus bought in four-inch pots now fill tubs on that porch. An eight-foot pineapple guava guards the door and other subtropical trees and shrubs choke the room . . . The cat once got lost in there for three days.

Both of these rooms are sad looking spaces in summer, but who cares. We're outside in summer, and so are the plants. A gravel patio in back, largely unplantable, turns tropical. Where you might expect only puny pots of petunias and geraniums, there are now figs and feijoas, agapanthus and crinums (this bulb alone worth a remodeling project), guavas and bananas, passion fruit climbing gleefully along a fence, sumptuous hibiscus. (Hibiscus were the one thing that made Florida worthwhile. Now I don't have to go down there anymore, so the sun porch pays for itself.)

Even with this range of plants available to me, I found myself gazing wistfully at catalog illustrations of temperate-climate plants too tender for my Zone 5 winters. Up in Zone 7, most plants were either herbaceous or deciduous. By the fall after the new Conservatory, space was already at a premium again, and I could not justify filling it with bare stems and seemingly empty pots. Besides, plants that hibernate need some cold — just not quite as much as my garden had to offer them.

I started probing new spaces, stretching my imagination and isolating zones with my maximum/minimum thermometer. The

continued



photo by Duane Campbell

The Babico papaya is an exotic-looking tub plant as fecund as a zucchini. Even under cool conditions on the sun porch or the back porch, the fruit will remain all winter.

photos by Duane Campbell



During the summer the tropicals thrive outside, turning an unplantable gravel patio into a lush landscape.



In fall the basement bulkhead fills with seemingly dead plants and empty pots awaiting winter forcing or spring revival.

The bulkhead was also the perfect spot to precool spring bulbs for forcing. After their requisite rooting period, they move to the cool sun porch for initial growth, then to the Conservatory. Finally, forcing tulips is as easy and foolproof as the books say it is.

well house was Zone 7. The garage was still Zone 5, but a Zone 5 more benign than my windswept hillside.

The cellar bulkhead steps

Then there was the cellar bulkhead entrance. No one hefts those doors from November to March, so there was all this wasted space. I found I could keep the temperature right around freezing by opening the connecting door into the cellar on the coldest nights. It filled with plants hardy in the ground here but questionable when potted — lilies, lycoris, cosmos and such.

The bulkhead was also the perfect spot to precool spring bulbs for forcing. After their requisite rooting period, they move to the cool sun porch for initial growth, then to the Conservatory. Finally, forcing tulips is as easy and foolproof as the books say it is.

Winter care for microclimates

Winter care for these diverse gardens is easier than main season gardening, but like powdered butter, it retains the flavor. Watering is minimal, since plants are either sleeping or at least resting. The most arduous task is raking the leaves that drop daily, but even this has its benefit. After three decades, my wife and I sometimes run out of conversation, but if I neglect the fallen leaves for a few days, it gives us something to chat about.

The best part, though, is tht I now leaf through the catalogs without the traditional bitter pill, where you are captured by a photo only to learn that the plant is too tender for your climate. No matter where they're suitable, Maine to Florida, I can find a place for them.

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Duane Campbell started grubbing in the dirt over two decades ago, beating the gardening craze that swept the nation in the '70s by about two weeks. This slight edge made him the local expert, and neighbors started asking him questions. He has been answering them in a column, Green Space, that appears weekly in newspapers in the Northeast. He now lives with his wife in his childhood hometown, Towanda, Pa.

Trellises:
Garden Art That Does Double Duty

"A garden should look like nature is winning."

by Douglas Alderfer

photo by Douglas Alderfer



The graceful curves of this trellis echo those of the espaliered English ivy and draw the eye upward. The framed tile to the right, found at a Fairmount flea markets, brings light to the deeply shaded garden fence.

continued

Trellises

A confined garden space can be a boon to imagination and creativity in much the same way that some plants flower more profusely when their roots are contained.



Plain, adjoining stucco walls and an air conditioning unit were eyesores needing attention in this corner of the backyard. The transformation began by painting the stucco surfaces and attaching a soft-green trellis, with arched wings and small framed blue tile accents, to the wall behind the compressor. Containers with plants chosen for variety of color, leaf texture and height sit on top while a horizontal trellis (with ivy leaf motif) flanks the front of the compressor, lending year-round interest. A Mexican mask attached to the drainpipe brings some vivid color to the garden corner. At the height of summer, the trellises practically disappear behind lush plantings and sinuous vines (hyacinth bean and moonflowers). A climbing rose, wisteria and a grapevine ramble up thin wire supports creating a green sunshade for the two-story rowhouse.

My imagination runs free, conjuring visions of summer splendor that are nearly musical: a garden with plants and grasses tall enough to rustle when you walk by; leaves offering teasing glimpses of their pale undersides and the entire garden moved to a swaying symphony by a stiff breeze. Daisies falling flat on yellow faces one moment, flopping heads back the next; leafy green limbs wrestling with one another. Mosses and variegated groundcovers make every step a delicate dance. Purple-tipped lythrum throws a sweet banquet for bees giddy from the rush of too many choices. Pausing to enjoy the shady gifts from an overhead vine or venerable tree, a site shared by exuberant ferns, hostas and caladiums, scents of herbs and flowers I cannot see beckon me to come visit. Nature wins with ease!

In the reality of my garden, however, I am seeking a partnership. A combination of nature unrestrained and the modifying considerations of limited space and budget. I always knew I wanted an intimate garden space in which I would be surrounded by green, but not until I bought my house in 1987 could I realize the gardening ideas I had been collecting.

I travelled to Europe in 1978 while I was in art school and was inspired by the variety of design influences around me, bits of which I knew would someday be incorporated into my private garden. In Barcelona I fell in love with the work of Antoni Gaudí and noted how the shimmering ceramic glazes and colors of Park Güell played so handsomely against the nearby vegetation. Years later I saw the use of decorative tiles as a way to bring color and texture into dark, shady areas as well as to hold their own in a blazing afternoon sun, which often washes out the colors of foliage and flowers. The meticulous craftsmanship of Art Nouveau architectural masterpieces in Germany was another source of inspiration. One particular doorway in Darmstadt left an indelible impression.

When I moved into my house in the Fairmount section of Philadelphia, the garden consisted of a brick patio with a single file of white chrysanthemums standing against a crumbling fence. At that point, nature was only a bit player in my backyard. I planted a variety of shrubs, perennials and even a couple of small trees in the garden. The raw materials for several raised planters were bricks I lifted from the patio. My previous experience in graphic design and woodworking enabled me to rebuild the rotting fence and to design four new trellises for climbing vines, which now envelop the backyard from early summer to the first frost. No one has ever mistaken my garden for Park Güell but I have used tiles to ornament a trellis, a gate, a fence and a brick planter.

In conceptualizing my garden and the changes I would make, I chose to incorporate natural and hand-made elements that lent year-round interest. Growing up in a rural area, I learned to appreciate the changing seasonal landscape: especially the subtle colors of late fall and the stark silhouettes of winter, as well as the more obvious charms of spring and summer. Most city gardens cannot provide the vistas and drama of vast open spaces. Trellis artwork provides a visual spark amidst the relative somberness of late fall and winter, while standing as a reminder of the promise of spring and the warmth of summer to come.

My garden has less than 200 square feet, but it is surrounded by as much wall space. I have been passionate about vines since childhood. This fascination helped shape my goal of having each vertical surface clad in some form of vegetation. By using trellises and other vine supports, I have been able to double my green space.

Accomplishing this meant adjusting for radical differences in sun/shade patterns.

photos by Douglas Alderfer



The geometrically designed trellis dresses up a drab concrete block wall and embellishes the decorative block inserts. Three varieties of clematis mingle to form a lacy green backdrop for the garden, which has become a sanctuary for creatures winged and earth-bound.

In the shady areas along the north- and east-facing walls, I have trained espaliered English ivy over the past seven years. It was harder to train vines to climb the sun-splashed back wall of my house and the south-facing side wall of a neighbor's addition because of a yard-wide strip of concrete at the base of each wall and a large central air-conditioning unit in the corner. I created planting space by building a raised semicircular brick bed against the back wall in which I planted a 'Concord' grapevine, *Wisteria sinensis* and a climbing 'Rhonda' rose, all of which ramble up a wire grid strung across the back wall, creating a green sunshade for the two-story house.

I placed terra-cotta pots on top of the rarely used air conditioner. In its current design arrangement the container garden includes: various herbs, *Spiraea* 'Goldmound,' *Euonymous alata, Sedum ternatum, Dianthus chinensis* and *Artemisia* 'Powis Castle.' Moonflower *(Ipomoea alba)* and hyacinth bean *(Dolichos lablab)* clamber up a trellis placed behind the compressor hiding the wall of the neighbor's addition. Another trellis, built this past winter, decorates the front of the compressor and will hold a black-eyed susan vine *(Thunbergia alata)* this year. I placed a German Art Nouveau-inspired trellis against another garden wall, visible from the dining room. The curvilinear shapes of its crown echo those of the garden gate and wall-trained ivy that can be seen from the house. Last year several moonflower vines used this trellis as a springboard to wrap around a nasty-looking drainpipe and soften its crags with fragrant summer blossoms. The trellis also has appeal without vegetation as a decorative piece of garden artwork.

During the past few years I've had the opportunity to build trellises for my friends' gardens as well as my own space. Small city gardens pose unusual challenges and offer special pleasures. A confined garden space can be a boon to imagination and creativity in much the same way that some plants flower more profusely when their roots are contained. The importance of a single element is magnified in a small garden. Each planting, the choice of paving material, garden artwork or furniture plays an important role in establishing or supporting a theme. Not all gardeners are so fortunate or industrious enough to design and construct their gardens from scratch. Some choices have been made for us when we inherit the remnants of a previous owner's attentions and oversights.

A Fairmount neighbor's garden has a drab concrete wall accented with decorative blocks that she wanted to ornament. The resultant geometrically designed trellis incorporates the existing decorative features, adding a touch of color and visual interest throughout the year. From April to October it supports three varieties of clematis.

Friends' rectangular backyard in Manayunk is chockablock with their neighbors' plots, which are separated by chain-link fencing. The blue-green trellis I designed accentuates the lushly grouped irises on the perimeter of the garden and supports a *Clematis* 'Comtesse de Bouchard.' It also serves as an unobtrusive architectural detail and boundary in the shared backyard garden panorama.

As gardens evolve and take on the personalities of those that tend them, they become breathing journals: of passionate expression, of trips and chances taken, of horticultural knowledge gained and patience tested. All who enter them will leave a little richer for having spent time there. Above all, a garden should provide pleasure and a chance to step outside the ordinary. When it does, everyone wins.

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Douglas Alderfer's garden won first prize in the "mini flower garden" category of the 1993 Pennsylvania Horticultural Society's City Gardens Contest. Alderfer abandoned an advertising career to become a psychotherapist and recently added courses in horticultural therapy, having derived for himself the therapeutic benefits of gardening over the years. Doug has been a volunteer with PHS's Friends of the Azalea Garden near the Art Museum over the last four years.

Invaders in the Garden



Some plants may be welcome guests when the landscaping budget is lean, but these plants need a firm hand when the land grab gets out of hand. The author talks to five experienced gardeners who know when to hold and know when to fold.

by Betty Barr Mackey

I used to feel annoyed whenever I heard gardeners complain about invasive plants. My garden needed everything! These plants can be charming, spilling and trailing about in abundance, like the lavender *Campanula poscharskyana* does at Joanna Reed's Longview Farm in Malvern, even if it does mildly shock by-the-book rock gardeners when they visit her. Some invaders bloom so generously, for example an established clump of daylilies in midsummer, or else they so nicely fill a spot with color, like a large grouping of chartreuse-leaved hostas, that they are worthwhile in any garden.

I'm still grateful to the friends who gave me starters of fast-spreading plants like ajuga, sweet woodruff, celandine poppy, Siberian iris, ostrich fern, yellow evening primrose, daylilies *(Hemerocallis fulva,* the wild or tawny daylily, spreads much faster than the named cultivars), hostas, *Phlox stolonifera,* chrysanthemums, bee balm, lily of the valley, strawberry begonia, cleome, and perilla to help me fill up a big, empty garden. They were perfect for a couple of years. But now I have more than enough.

These prolific plants have filled every nook and cranny and are beginning to fight it out with one another. Dividing some of them will take a lot of muscle. But spots where I gave plenty of space to just one plant type are still looking fine. At least I had not put in any golden bamboo, and the notoriously stealthy, stoloniferous gooseneck loosestrife was here already, so I shake off any blame for introducing it.

Joanna Reed

It is now time to control all these running or seeding invaders, which served me so well for a time. But I still like them! So I asked Joanna Reed what she does. Her large, famously floriferous landscape uses them to advantage, along with many rare treasures. She finds that every garden plant has some kind of problem, so she is appreciative of, yet necessarily ruthless, with the invaders. She shared her technique:

"Where a plant has grown out of bounds I make a shape for the clump with a trowel or spade and pull out all of it that grows past the line. This way you start near stronger stems and get a chain of plants out without having to pull each thready bit individually. It goes quicker that way."

After making an outer shape for the clump, Joanna reaches in to thin the remaining plants, and also mulches heavily to make it easier to get the unwanted roots out next time. Invasive perennials don't go into the regular compost after they are weeded out: instead they go into a pile that is not used for the garden. She keeps it for things like onion grass with roots or seeds that always come back.

"Nothing good goes in there," she said. "Someone with a normal yard would throw this kind of thing in the trash."

She spreads out big plastic trash bags like drop cloths, dragging them around the sections of the multi-acre garden as she works. Rocks and stones go on one, "obnoxious" trash on one, "good stuff" for compost on another, things to transplant on another. Inside the beds she uses buckets similarly.

Joanna's garden is filled with larkspur in June and July, an unforgettable sight. "I usually let it go where it wants," she says of this hardy annual that self-sows prolifically where it is happy. But sometimes she will redo an area. Her self-sown shirley poppies were eaten by rabbits two years back, but she is turning this mishap to advantage, clearing a spot and taking out all the perennial weeds before reestablishing poppies and larkspur.

She lets volunteers of plants she likes, like the larkspur, go to seed and then cleans and hand tills areas around them to make a place for ripe seeds to fall and grow. She also cleans out and prepares the ground in new areas where she would like to establish a self-sowing plant such as larkspur or foxglove, then lays or shakes seed-bearing stalks upon it and lets nature do the rest.

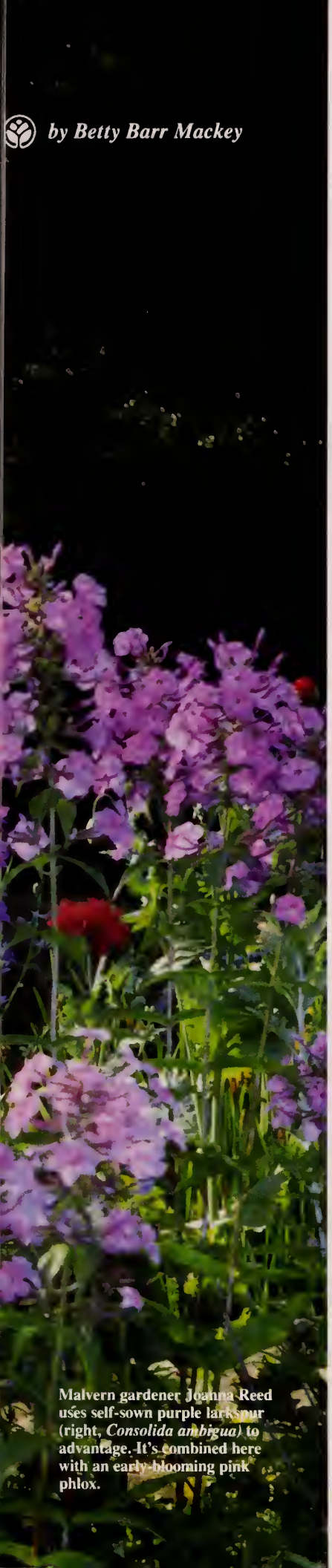
Greg Esterly

Nature will do this most prolifically, getting back to my problem of oversupply. I checked around a bit more; landscaper Greg Esterly was here installing a rock retaining wall so I conferred with him.

"An invasive plant is one that grows too fast," he said. "You soon get tired of pruning it all back. All the invasives have an appropriate use — you have to know where and when to use them. Except Bishop's weed. That is always invasive."

Esterly says that things that creep or seed around are invasive. But for a broad area, it's worthwhile to use invasives such as ivy, pachysandra, ajuga, and nettle as ground covers. Periwinkle vine is not as invasive but can eventually reach a point where it needs a lot of maintenance. A large site surrounded by pavement can be filled in

continued



Malvern gardener Joanna Reed uses self-sown purple larkspur (right, *Consolida ambigua)* to advantage. It's combined here with an early-blooming pink phlox.

photo by Betty Mackey



photo by Ed Mackey



photo by Betty Mackey



photo by Betty Mackey

Top left: The lovely arched blooms of *Lysimachia clethroides* (old gooseneck) lead many a gardener into bringing a highly invasive plant into the garden. Beware! Thin and fertilize this plant every year if you do grow it. **Bottom left**: A campanula *(C. persicifolia)* has volunteered itself among the daylilies. **At right**: Here are two plants notorious for their ability to self sow themselves far too widely: *Cleome hasslerana* (pink flowers) and *Perilla frutescens* (purple foliage). If you allow any self-sown seedlings to grow, thin them and transplant them into good garden soil where they are wanted.

with any one creeping kind of plant and require little maintenance. But in a small garden, avoid invasives and use plants with interesting textures and colors.

David Culp

David Culp, immediate past president of the Hardy Plant Society, Mid-Atlantic Group, can find a good word for some of the invaders, but is wary of them ever since his experience with yellow-stemmed bamboo when he lived in Atlanta. Some plants run; in four years this plant galloped from his terrace, where the designer/owner before him had planted it, to his next door neighbor's yard, dislodging pavement bricks as it traveled. He dug it all out and had blisters for days.

Betty Sparks

Betty Sparks, who heads the Salvia Study Group in the Hardy Plant Society, spent many hours in spring a year ago picking bits of the fat pinkish white roots of loosestrife or gooseneck lysimachia out of the landscape timbers and the compost pile bed where it had settled in with amazing speed after having been given to her as a gift, innocuous looking in a four-inch pot. Each bit of root that escapes is capable of filling a square yard of soil with lusty plants in a year or two.

Culp says he uses invasive plants at the edge of his property in Downingtown.

He is wary of the invaders ever since his experience with yellow-stemmed bamboo when he lived in Atlanta. Some plants run; in four years this plant galloped from his terrace, where the designer/owner before him had planted it, to his next door neighbor's yard, dislodging pavement bricks as it traveled.

There, where the soil and light are poor, a "nice" garden plant would struggle, but the running, invasive types grow well, and not too fast. The lack of fertility helps cut down their speed. They are banned in areas near the house.

Stoloniferous plants with runners that take root wherever they land are the most invasive. Strawberries, including a relatively new introduction, the pink-flowered cultivar 'Pink Panda,' seem to jump from one spot to others yards away. You can already find 'Pink Panda' at the donations table at garden club plant sales. The worst invaders have yard-long underground stoloniferous roots, like pachysandra and *Lysimachia* species. You can't see the damage they are doing until it is too late.

Heather Lovett

Heather Lovett, a New Jersey cut-flower farmer and garden columnist, has several areas where she encourages self-sown plants, but not perennials with running roots. She especially enjoys shirley poppies, emilia, nicotiana, larkspur, feverfew, jewels of opar, and perilla, and finds that the self-sown plants often outperform those of the same species, which she sows in the spring to be sure of having enough. I questioned her about perilla, which is too rampant for me and gets into the lawn. But its purple foliage is so popular in her cut-flower bouquets that it hardly has a chance to set seed. To prevent volunteers, she harvests or deadheads other plants, chives for example, before they go to seed.

Heather cautions against sowing sweet annie, used for dried bouquets, a nice sounding foliage plant (with a nasty smell), which dispersed itself all over her flowerbeds. Although she tried to eradicate it to keep more seed from forming, vigorous new plants emerged continuously for five years, apparently from seed that stayed viable in the soil, and also in the compost pile. She will never plant it again, even though she welcomes compost volunteers of other kinds of flowers.

David Culp lets the purple-leaved *Lysimachia ciliata* weave around in some of his beds, but yanks it out wherever he does not want it. He always pulls up more than he thinks he needs to with a running plant like this — it grows back very quickly.

Plants Mentioned in This Article

Common Name	Botanical Name
ajuga	*Ajuga reptans*
artemisia	*Artemisia ludoviciana*
bamboo, golden or yellow stemmed	*Phyllostachys aurea*
bee balm	*Monarda didyma*
bishop's weed	*Aegopodium podagraria*
celandine poppy	*Stylophorum diphyllum*
chives	*Allium schoenoprasum*
chrysanthemum	*Dendranthema x morifolium* (formerly *Chrysanthemum x morifolium)*
cotoneaster, willow-leaf	*Cotoneaster salicifolius*
daylily	*Hemerocallis* species and cultivars
emilia	*Emilia javanica*
evening primrose, yellow	*Oenothera fruticosa*
foxglove	*Digitalis grandiflora*
feverfew	*Tanacetum parthenium* (formerly *Chrysanthemum parthenium)*
firetail	*Dichelostemma Ida-Maia*
flowering tobacco	*Nicotiana sylvestris* (in Delaware Valley, this self-sows more than other species)
hosta	*Hosta plantaginea, H. undulata*
houttuynia	*Houttuynia cordata*
iris, Siberian	*Iris sibirica*
ivy (English)	*Hedera helix*
jewels of opar	*Talinum paniculatum*
juniper, blue rug	*Juniperus communis depressa*
knotweed	*Polygonum* species, esp. *P. bisorta* and *P. cuspidatum*
larkspur	*Consolida ambigua*
lily of the valley	*Convallaria majalis*
loosestrife, gooseneck	*Lysimachia clethroides*
nettle	*Lamiastrum galeobdolon*
New York fern	*Thelypteris noveboracensis*
nicotiana	*Nicotiana sylvestris*
pachysandra	*Pachysandra terminalis*
perilla	*Perilla frutescens*
periwinkle vine	*Vinca minor*
poppy, shirley	*Papaver rhoeas*
strawberry	*Fragaria x ananassa*
strawberry begonia	*Saxifraga stolonifera*
sweet annie	*Artemisia annua*
sweet woodruff	*Galium odoratum*
Pennisetum, fountaingrass	*Pennisetum setaceum*
Pennisetum, feathertop	*Pennisetum villosum*
Phlox	*Phlox stolonifera*

Note: although the species *Campanula poscharskyana* has no common name listed in *Hortus Third*, campanulas as a whole are often called bellflowers.

He likes the multicolored perennial foliage plant *Houttuynia cordata,* which has creeping rhizomes and can be a problem to the unwary. But confined to a pot or pavement-bounded space, it is spectacular. He says some of the knotweeds and firetails are now in vogue for long-lasting late summer color, but they too are going to grow and spread quickly, and the gardener should anticipate this. Ferns are effective in the garden, but spread fast, especially New York fern, and can be difficult to get rid of. Artemisias can be difficult to control. And when the lovely plumes of *Pennisetum* species shatter, the grass reseeds itself everywhere.

Culp, however, can find one more nice thing to say about invasive plants: "When you grow them you'll always have something to share, as long as you give it away with the proper warnings."

Any plant needing maintenance more than twice a year is pretty invasive and should be used with caution. That includes shrubs. Keeping blue rug juniper and willow-leaf cotoneaster in line as they mature can be difficult.

The longer the runners or new shoots, the larger a space the plant needs, and the farther it should be from other species. Plants with creeping roots and rhizomes can be held in check with sturdy underground barriers or planted while still in their pots. But if they escape, watch out!

Invasiveness and vigorous growth are a tradeoff. If you plant the invasive types of plants for quick results, be prepared to thin them several times a year, and eventually to eradicate some of them, as the garden matures. Never let them grow out of control or you will have a tangled jumble of plants. The worst situation is where several invaders have gotten into the same space. The only thing to do with them is take them all out and start over.

But that's what gardening is about. Somewhere there's someone with a big new garden and not much of a budget for landscaping. There, the invaders you are removing may be welcome again for awhile.

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Betty Mackey is a coauthor of *The Gardener's Home Companion* (Macmillan, NY, 1991) and *Cutting Gardens* (Simon & Schuster, NY, 1993). She designed two blank journals, *The Plant Collector's Notebook* and *Garden Notes Through the Years,* both from B.B. Mackey Books, Wayne, PA, 1993.

Garden Passion

Midlife and a new home reawaken a freelance writer's passion fo

by William Guthrie Hengst

You might say I was a lawn child. When I was eight, I started gardening. Or more accurately, I started taking care of my parents' yard — a quarter acre of lawn, modest perennial beds, shrubs and hedges. I cut and edged the lawn, trimmed the hedges, raked leaves, and weeded the crabgrass. Back then, crabgrass was to lawns what Scrooge was to Christmas. You didn't want to be seen in Shaker Heights, Ohio, with crabgrass in your lawn. Those few families who had lawns of creeping bent were envied.

It all began when I came home from the hospital after having my tonsils out, and saw that the new yard man had not cut our grass. The next morning, still nursing a raw throat and sentenced to my bed, I snuck out and cut the grass while my parents weren't looking. The next week, my Dad fired the yard man and from then on called me "the yard man." He even paid me for my time.

I was hooked. I had a job to do that I enjoyed, and for the next 10 years I cut a lot of grass. The perennials were my Mom's province, so I did more low-level maintenance than high-level gardening. Between ages eight and 18, I spent more time taking care of my parents' yard than any other activity besides sleeping and school. Don't get me wrong, I liked the yard work, but it probably got in the way of my social development — too much work and not enough play.

During the next 30 years I did little yard work. I was simply burned out from my early stint as a yard man. Now in midlife, all that has changed. My second home came with a quarter-acre yard, not the postage stamp that came with my starter house. It didn't really dawn on me until after the settlement that I had yard responsibilities again — grass to cut and weeds to pull. I shuddered at the thought, went out and bought a hand mower, and resumed the weekly rites of grass cutting. Gradually I discovered my real calling in life — gardening.

My Dad fired the yard man and from then on called me "the yard man." He even paid me for my time.

My passion for gardening ignited when I became a volunteer gardener at the Morris Arboretum of the University of Pennsylvania — joining the Wednesday morning volunteers that help tend the grounds. There I met other volunteers whose love for gardening transcends their own back yards, and discovered that the real joy of gardening stems mostly from the learning, particularly learning from others.

Mornings at Morris rekindled my curiosity to learn about nature and growing things. I simply opened my eyes and asked questions. While helping to prune, weed, mulch, or plant, I saw many unfamiliar trees, plants, and insects to inquire about.

continued



illustrations by Carol Scott

gardening, dormant since his youth.



Garden Passion



I learned to identify poison ivy, a necessity for my survival, since I break out if I walk near that wretched plant. I learned the identifying traits of its carbon copy, box elder. I met poison ivy's antidote — jewelweed — whose juice applied to the skin reduces the severity of the poison ivy outbreak.

Each Wednesday I returned from the Arboretum and wanted to do things to my yard. Grass and shrubs were no longer enough. Some Wednesdays I brought home surplus plants that we had just dug up at the Arboretum. It was like finding stray cats and bringing them home. That's how I got my first clumps of *Sedum* 'Autumn Joy' and bush clematis.

In my own garden, I created a modest perennial bed, filled mostly with annuals, but it was a start. I discovered a small Katsura tree seedling growing next to my house, which I transplanted to a spot in my back yard where it has room to spread and flourish. I had visions of my Katsura growing up someday to resemble the Arboretum's sprawling specimen. Some fantasy. My yard would hardly hold it.

That first year I mostly watched what grew in my yard and pondered its potential. The following spring, I couldn't sit still. I started making the rounds of garden tours to see what other folks were growing. I began close to home with a Mt. Airy garden tour, and visited the local shrines — the Henry Foundation and Bartram's Garden. Then I ventured further — to gardens in Lancaster County, and eventually up to Maine.

Everywhere I went I headed for people's gardens. Invariably, these visits triggered new ideas and enlarged my palette. For yellow I added yarrow and evening primrose, for blue — baptisia and forget-me-nots, and for orange — geum and rudbeckia. In Maine I salivated over the sight of seven-foot stalks of purple meadowrue, which I haven't yet been able to replicate in my garden. The three I planted this spring turned into pygmies rather than giants.

The second year, I began to keep notes, recording what I brought home and planted, and what I had learned. I began to read what contemporary writers with a lust for gardening and nature have had to say. Three favorites, so far — *Second Nature: A Gardener's Guide to Education,* by Michael Pollan (Dell Publishing, New York, 1991), *Living at the End of time,* by John Mitchell (Houghton Mifflin Co., Boston, 1990), and *Noah's Garden,* by Sarah Stein (Houghton Mifflin, Boston, 1993).

As I weed, I keep moving. Now that I no longer run marathons, it's another way to keep a middle-aged body in shape — aerobic gardening.

This spring, once again I couldn't sit still. I doubled the size of my perennial garden, and planted a buffer of berrying shrubs, comprised of Viburnums *(V. dentatum* and *V. mariesii)* and spicebush *(Lindera benzoin).* In the perennial bed I introduced a mixture of ornamental grasses — Hanse Herms *(Panicum virgatum),* Yaku Jima *(Miscanthus sinensis),* and *Miscanthus transmorrisonensis,* and butterfly-attracting plants — butterfly bush *(Buddleia)* and bee balm *(Monarda).* The Arboretum was indispensable with its post-plant-sale giveaways of surplus plants to volunteers — especially nicotiana and *Gomphrena* 'Lavender Queen,' which helped fill in the gaps in my beds.

My passion goes into orbit during that six-week period between May 1st and June 15th — prime time, when everything seems to take off and grow. This spring, instead of waiting around for my freelance writing career to blossom, I took a page out of former Haverford College President John Coleman's book *Blue Collar Journal* (Lippincott, Philadelphia, 1974) and I hired myself out to a local landscape contractor and an estate gardener, and started getting paid again for gardening.

Mostly, what they had me doing was weeding. I hunker down close to the earth and get dirty and sweaty pulling weeds. I love what I do. Weeds are not longer the enemy, just prolific plants to get to know and remove. This spring I became intimate with oxalis, dead nettle, and goutweed. As I weed, I keep moving. Now that I no longer run marathons, it's another way to keep a middle-aged body in shape — aerobic gardening.

My gardening jobs have brought other new discoveries. The tools have changed. Brooms have been replaced by motorized blowers, which offend my sensibilities as landscape crews wave the noise blasters, blowing off every blade of grass on terraces and sidewalks. Alas, I confess, I've now used the blasters, and they sure do save time.

I discovered one new convenience I really hankered for. After getting wet repeatedly from leaky nozzles or from holding my finger over the open end of a hose to simulate the nozzle, I realized that I really wanted the latest in home irrigation systems — a rain wand.

The day I drew my first pay check as a gardener, I treated myself to a 30-inch rain wand. That evening, watering my thirsty flower beds, I soaked each hard-to-reach plant and shrub with a soft jet of spray from its proboscis-like shower head, and not a drop hit me. My rain wand in hand, I felt like father nature.

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William Hengst, land planner, artist, and freelance writer, first wrote for *Green Scene* in the July/August 1993 issue. This fall he began horticultural study at the Arboretum School of the Barnes Foundation.

The Pennsylvania Horticultural Society, the Poinsettia and a New Holiday Collectible

by Ed Lindemann



For years the poinsettia has been synonymous with holiday decorations. Flowering poinsettia plants adorn our homes and the poinsettia image is found on greeting cards and giftwrap. Did you know that the Pennsylvania Horticultural Society played an important role in creating this tradition?

The story begins in the early 1800s. Dr. Poinsett, United States Minister to Mexico, brought some plants back to the states and sold them to Robert Buist, and active member of PHS. The sale of Buist's double-form poinsettia to a European customer was the first transaction of its kind by ocean telegraph. Buist enjoyed exhibiting rare and unusual plants and displayed his poinsettia plants for the public at the first Philadelphia Flower Show in 1829. Liberty Hyde Bailey in *Standard Cyclopaedia of Horticulture* (Macmillan, N.Y., 1927) states, "It was the Pennsylvania Horticultural Society, I believe, which has brought the poinsettia from tropic lands for our Christmas adornment."

This holiday season there is a new way for you to have the poinsettia adorn your home. Strawbridge & Clothier has commissioned and American artist to create a limited edition of holiday ornaments each handcrafted with a beautiful porcelain poinsettia correct in every detail. The Pennsylvania Horticultural Society will receive 20% of all sales from this delightful holiday ornament.

Limited Edition

Pennsylvania Horticultural Society
Poinsettia Holiday Ornament
first in a series
made exclusively for
Strawbridge & Clothier
available at all S&C stores by calling
1-800-824-2424

The ornaments retail for $25.00
($5 benefits PHS)

Gardening for Forever . . .

Well, for as long as you live

by Toni Brinton

On my 65th brithday I received the hand-drawn card from my daughter (see page 27). Ever since that watershed event I have been noticing how many people through time have viewed the garden as a place to brighten one's old age. I have collected three single-spaced pages of quotes.

Consider Horace who wrote when Rome ruled the world, "These were my daydreams, then, a plot of land, not very large, an ever bubbling spring. Hard by the house, a garden and around a bit of forest. The propitious Gods have blessed me yet more rightly. It is well." This dream of Horace's describes my own present plot of land, so I, too, have been well blessed.

Thomas Jefferson, builder of Monticello, as well as one of our revered presidents, a man of many accomplishments, was a gardener *extraordinaire* who kept a garden book and who said to Charles Wilson Peale "No occupation is so delightful to me as culture of the earth, and no culture comparable to that of the garden."

Then there are the ubiquitous cocktail napkins pronouncing that "Old gardeners never die, they just spade away."

These thoughts were viewed by veteran gardeners with a measure of skepticism. If you do it yourself as opposed to supervising the work, gardening does become increasingly difficult. Just getting up and down from weeding is sometimes a challenge. Yet few want to abandon their gardens and the pleasure they find in them. The therapeutic value of gardening is well documented by those who work with the mentally or physically handicapped. Recently, moderate exercise has been highly touted to prevent physical deterioration. The doctors say it's good for you to garden. Whether it's vegetables, flowers, shrubs and trees, it's hard for most gardeners to envision their life without a garden of some sort. The question is how to be realistic, how to make the dream come true.

I believe that we can all keep gardening as long as we like if we assess our own physical abilities and concentrate on our prime gardening interests. Most gardeners have been through several growing phases: annuals, perennials, herbs, vegetables, dwarf conifers, alpines, trees, shrubs, groundcovers; the whole green world has been explored by the average dedicated gardener. At age 50 or plus, it's time to be selective, the time arrives to exercise discrimination if nothing else.

The vegetables in my terrace garden should probably be replaced with small shrubs and perennials. There is nothing like fresh-pulled scallions, your own tender lettuces, and a tomato hot from the vine. But vegetables are ephemeral, we grow them to eat them, which means they are only temporary residents. Yet they require time and space. The placement of tomatoes need to be rotated. Fertilizing and dusting goes on all summer long. We do have an alternative to growing our own food. In the Delaware Valley most of us have access to the great good produce found at our family farmstands, the larger farmers' markets, and in Philadelphia, there is the famous Reading Terminal Market or the Italian Market on South 9th Street.

Some gardeners would give up their flowers and keep the fresh and wonderful varieties of veggies that enhance their summer table. The alpine and dwarf conifer growers have built-in limited size and space requirements with their chosen green field. Tree lovers, too, are lucky, but for the fact that the older they grow the less likely they are to see their tree mature. So they often splurge, spending enormous sums of money for more mature specimens so that they can enjoy them during their lifetimes. Whatever your growing delight is, whatever gives you the most pleasure, begin now to concentrate on that gardening aspect.

Gardening aids, the right tools

Recognize that arthritis does cripple hands and knees. Kneeling pads are wonderful, they cushion knees and bottoms, too. The gardening stool not only provides a place to sit, but is a handy helper-upper. A plastic, washable, handled basket of a bright color (visible among the greenery) with various compartments for seeds, tools, labels, pencils, a small amount of fertilizer, bug repellent, and your gloves, does save the countless steps back and forth that eat up time and energy. All gardening aids are not equal. With the various new trowel designs on the market, you need to try them out to see which one fits *your* hand comfortably. Some gardening aprons have pockets to carry all that goes in the basket mentioned above, but I find the weight around my middle both hot and tiring. You may find you like it because it won't be misplaced tied to your middle. Get organized before you venture out to the garden. Plan your gardening time, assembling all that you anticipate needing in one spot before you begin. Making a "to accomplish" list does make a more efficient gardener.

Record keeping

I am convinced that I would be a better gardener if I were a better recorder. Next year, I plan to document, on a calendar reserved for the garden alone, the hours I spend each day and what I accomplished. Some days all that will be recorded will be 15 minutes spent pulling the obvious weeds from the front door. The month of August will probably be blank as we are often away then. The first days of September, by contrast, will be filled with the push to clean up weeds, deadhead, prune, etc.

I do always note in September what needs to be moved or removed first thing next spring, which small trees need pruning. I have a running want list. I also have the spray schedule for the rhododendrons to prevent root vine weevil. I did not spray in 1993 and the damage is evident. Next year I will double star those dates in my just-for-gardening calendar. Notes on our successes and failures are important.

I order too many seeds from plant societies. Now I vow not to try those varieties that have failed more than twice. From now on I plan to concentrate on my successes, growing only those plants that have really flourished in my garden. Which are the toughest plants; which ones survive drought and neglect; which ones persist year after year; which are invasive and which not. Answering all those questions will make for smarter gardening. Recording the dates and times of actual physical gardening will show you the peak demands of your garden. Perhaps it would be wise to look this record over in January before ordering from all those new tempting catalogs. With the limiting of abilities, older gardeners are required to research, take notes and discriminate.



illustration by Gail Brinton Bryan

Critique your garden design

Some gardens are well designed for easy maintenance. Parts of mine are easy, others are downright dangerous. I began a rock garden area 12 years ago. It requires the agility of a mountain goat to plant and weed. I am persuading myself either to move or remove the small alpines to the less difficult terraced garden and let the small conifers and Tisbury azaleas take over that hazardous slope. I should concentrate on the entrance areas. My herb collection should be moved from its present place of honor. I'll keep only what I really use in the kitchen. Though I love them, herbs are not eyecatchers or even slightly dramatic. The evergreen small tree-shrub backbone area of the garden should receive careful scrutiny now for its appearance influences the whole garden. It will also probably outlast us. Move or remove what is not perfect. Decide which are your favorite small flowering trees and shrubs. Are these where you can see them and enjoy them? Will they be "right" in their present space for the next 20 years? Start a list of your favorite three to six plants for each month, including trees, shrubs and herbaceous plants.

Consider what has the longest lasting interest. Aim to find four seasons of interest. Can you retract your garden to those areas nearest your house, your entrance, your terrace, your deck? A dooryard garden of special loves and treasures, a few steps from the door, requiring a minimum of physical effort, is the ideal place for those of a certain age to carry on their love affair with plants and the earth.

Revamp, revise, draw it on paper, this garden design for forever. Only those enduring, year-round pleasure givers should be allowed in your specially selected garden. There **are** ways around the infirmities of age, there **are** possibilities for all of us to garden to the end. Plan and cultivate your ideas now so that the 17th Century poet and gardener Abraham Cowley's wish (1618–1687) can come true for you. "And yet e'en I descend to the grave, May I a small home and large garden have! And a few friends, and many books, both true, both wise, and both delightful, too."

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Toni Brinton is president of the John Bartram Association. She has served two terms on the Pennsylvania Horticultural Society Council and is a frequent contributor to *Green Scene.*

Vanilla

Our Most Popular Flavor

by L. Wilbur Zimmerman



Two common uses of vanilla for flavoring: ice cream and the classic vanilla wafer.
photos by Wilbur Zimmerman

While many people may know that one of the favorite flavorings of the Western world, vanilla, is from the seed pod of the orchid *Vanilla planifolia,* most people probably don't know the interesting story of its discovery.

Cortez was the first European to taste vanilla. In 1719 the Aztec Emperor Moctezuma [sic], thinking Cortez was the white god whose coming in a great ship across the ocean from the East was prophesied, gave Cortez and his lieutenants the royal treatment, which included the ceremonial beverage chocolatl.

The chronicle of Bernal Diaz, an educated soldier in Cortez's army, described chocolatl as being made from finely ground cocoa beans, pulverized cornmeal, honey and crushed vanilla beans with some water. He wrote that the drink without vanilla was most unpalatable.

Advertisements in the Philadelphia newspapers show many ice cream "saloons" touting their wares, attesting to ice cream's popularity as a confection in the late 1700s. When Jefferson returned from France in the 1840s to assume his duties as Secretary of State, he is credited with having vanilla shipped from France. Thus he set the stage for the ice cream makers to introduce the flavor probably most responsible for giving Philadelphia its national reputation for the best ice cream.

The small black specks seen in most premium vanilla ice cream are finely ground dried vanilla beans. Other goodies, such as cookies, cakes, puddings and certain fruit-flavored soft drinks are enhanced by the addition of vanilla. The flavor may be introduced by the extract, created by steeping the ripened bean pods in pure alcohol and then cutting the product with water to reduce it to about 35% alcoholic content. This is the form in which real vanilla is most often found on grocery store shelves. Along side, there will probably be vanillan, artificial vanilla and imitation vanilla or vanilla flavor.

Vanillin, which is one of the main components of real vanilla, can be produced synthetically and was discovered in 1858.

The chemistry of real vanilla is complex containing three glucosides, which account for its smoothness and aroma. Because vanillin can be produced from a number of natural sources such as lignin and coumarin, it is used as an artificial substitute when the subtler flavor is not required. Because it is

Vanilla is our most expensive condiment next to saffron.

much cheaper to produce, it's more widely used.

We don't know how the ancient Mexicans learned to produce vanilla, which can require as long as 15 months from pollination of the orchid flowers to the time the vanilla bean is ripe enough to harvest, has been cured and is ready for use. Just as puzzling is how they discovered the black vanilla pods made chocolate palatable. Today's chocolate candy industry would have a difficult time without vanilla as an ingredient.

Since true vanilla manufacturing requires considerable skill, is time consuming and labor intensive, it is our most expensive condiment next to saffron.

The flowers, numbering six to eight on a raceme, open about every other day, and the person doing the hand pollination must be able to recognize the optimum time for fertilization as well as develop some dexterity in transferring the pollen mass. Hand pollination results in a much higher fertilization rate than by insects. The harvester must be able to tell when the pod is really ripe. It cannot be green and it must be picked before the pod drops the seed. This period of maturing usually takes about six months.

People have tried quicker ways to induce pollination, bypassing bees, ants or hummingbirds, but spraying blossoms to fertilize them results in an inferior product. Natural pollination, i.e. lifting the rostellum and placing the waxy pollen on the stigmatic surface, is necessary for the development of the other elements and can be accomplished by insect or other physical means. The true aroma and bouquet seems only to be produced by the seeds and the placenta in this fashion.

The blooming flower has little or no vanilla odor nor has the ripened seed pod before curing. It takes the heating, sweating and alternate drying under controlled conditions to produce the vanilla odor and flavor we value. Strangely enough a certain number of other orchids have an odor resembling vanilla when they are ripest for fertilization; but they have not proved to produce the fermented vanilla bean quality. The intricate chemical process that goes on during the curing is essential. It had to have taken a lot of experimentation before this technique was perfected by the Mexicans, perhaps more than a thousand years ago.



Vanilla planifolia, orchid blossom.

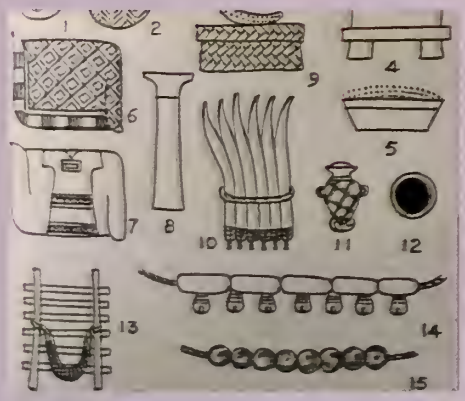


Fig. 10 of the copy of a page of the codex, shows the value the Aztecs placed on vanilla by including it as one of the articles of tribute exacted from their subjugated neighbors.

Philadelphia Inquirer Touts Vanilla

As we were readying this issue, Tanya Barrientos wrote an article (Philadelphia *Inquirer* 8/29/94) saying "Vanilla's day in the sun has dawned."

Barrientos's research showed that the newly hip vanilla scent will be as popular as musk was a couple of decades ago. She wrote of the honest, safe scent, that it will replace musk in the workplace: "Women in the workplace don't want to be smelling sexy, they want to project calm and confidence." Bring on the vanilla. Barrientos noted that The Body Shop's vanilla oil is one of the store's top 10 sellers for both men and women.

Barrientos went on to report that Memorial Sloan Kettering Cancer Center in New York conducted a study where heliotropin, a vanilla scent, was pumped into a chamber where patients were undergoing magnetic resonance imaging; they found that patients "who experienced the vanilla smell suffered 63% less anxiety than those who didn't get the vanilla treatment."

Thanks to the Philadelphia Inquirer *for permission to reprint details from their story.*

The Editor

Is It Vanilla or Vanillin?

Pure Vanilla Extract The classic true vanilla, an infusion of vanilla beans, alcohol and water.

Vanilla Flavor A mixture of pure vanilla extract and some synthetic form in various proportions.

Natural Vanilla Flavor This is confusing, because natural sources can be any other natural substance than the vanilla bean from which vanillin can be extracted, like wood products. This then is mixed in various ratios with the pure vanilla extract.

Imitation Vanilla Made synthetically from any substance other than the vanilla bean.

Artificial Vanillin also known as Lignin Vanillin An artificial by-product usually from the paper industry, which is commonly used in vanilla flavor and imitation vanilla.

Natural Vanillin The major component of the natural substance of the vanilla bean. It is not synthetic, however labels saying only "vanillin" indicates a synthetic product.

Ethyl Vanillin A coal tar derivative.

Coumarin Made from the tonka bean and used in some synthetic vanilla from Mexico. This is a truncated version of distinctions that have been spelled out by the U.S. Food and Drug Administration for labelling of prepared products with pure vanilla and synthetic vanillas.

For More Reading

Vanilla Cookbook, by Patricia Rain, Celestial Arts (Vol. II), Berkeley, California, 1986.

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Wilbur Zimmerman developed a strong interest in the culture, history and archeology as well as the flora of Mexico as a result of six collecting trips for its native orchids. He and his wife Mary made these trips, along with several other orchid enthusiasts, between 1955 and 1968. Wilbur has been a certified judge for the American Orchid Society since 1955. For the years of 1974 and 1975 he was chair of the Philadelphia Flower Show Executive Committee and was Council chair 1976 to 1980.

Black Gold: Large Scale

by Patricia Merritt



A "turner" fluffs up a steamy windrow that is almost ready to be moved to the sale area.

Composting

A meat packer finds a valuable use for tons of raw manure and cardboard.

Nestled in the Endless Mountains of Northeastern Pennsylvania is a gold mine . . . black gold, that is. The kind of black gold that gardeners can never get enough of. Dark, nutrient-rich compost that locals in this rural community are lucky enough to be able to buy for $5 a ton!

Taylor Packing Co., Inc. in Wyalusing has taken the concept of efficiency to the limits to develop cost-effective ways to dispose of their waste stream of raw manure and cardboard. It's all a matter of perspective. Manure in the meat packing industry . . . a waste stream or a valuable resource? They call it a valuable resource.

One of Dave Heller's responsibilities as manager of Buildings and Grounds for Taylor Packing was to get rid of 10,000 tons of raw manure each year. It was costly to spread on nearby farmers' fields, and the truth was that not many farmers wanted it. Not even for free! They had enough of their own "by-products" to get rid of right in their own backyard. And Dave didn't think the company was practicing good public relations as they cruised through town with a ripe and fragrant load of wet raw manure en route to a local field. He just thought there had to be a better way. Three to four years of research and experimentation proved that he was right.



photos by Robert Maxon

Five days a week raw manure is mixed with ground cardboard and hay before it is transported to the main composting area.

Dave started his research by visiting several existing composting operations to come up with a method of production that would suit the company's needs. Taylor Packing then constructed a grinding and mixing area that consists of a concrete slab with drains that pipe all run-off to the company water treatment plant. After ground hay, cardboard and manure are mixed with a bucket loader it's weighed and trucked to the main staging area. Strict environmental standards were met in the construction of the staging area. Underneath the five to seven 300-ft. windrows lies a 7- to 8-foot clay base and an efficient drain system that, like the mixing area, is connected to the treatment plant. Fred Giffin, a former contractor who built the staging area, was recruited as project engineer for the company to help develop drying methods for better year-round production. Dave and Fred agree that a roof is needed over at least a portion of the staging area to facilitate winter composting.

Compost is mixed, monitored and turned by the company five days a week. At that stage 50%-60% of the total manure waste stream and 100% of the cardboard waste is composted. The "recipe" varies day by day, depending on the weather. The windrows are exposed to the elements so the amount of rain, snow, humidity and even dew will affect the proportions of cardboard to hay to raw manure in the mixture. One to three tons of cardboard that was trucked to a landfill in the past is now ground daily, providing a valuable carbon source. Everything is weighed and measured, and meticulous records are kept.

Each windrow in the staging area initially weighs 200 tons. Water loss reduces the finished product to about 125-130 tons. The temperature of each row is monitored and they are turned three times a week. On the high side the temperature will register 130°-140°F. At that level any weed seeds present will be burned and the materials break down rapidly. Dave said that initially he used only manure and cardboard in the mixture. He was having difficulty getting the piles hot enough to facilitate rapid decomposition until his uncle told him: "Well, you're a stupid farmer if you don't know enough to put hay in your compost!" So he did and now it "works" perfectly. It takes 6-10 weeks for the temperature to decline to an 80°-90°F level where the bacteria are spent and the product can be

continued

photos by Robert Maxon







At top: Steam rises as the "turner" works a fresh windrow. **Bottom left**: Dave Heller and Fred Giffin teach the author the fine points of large scale composting. **Bottom right**: Compost hills, 300 feet long, fill the main staging area. Each windrow is at a different stage of decomposition and is monitored daily.

continued

moved to an area from where it can be sold.

Dave aims for a 55%-60% moisture level in the finished product. A fistful of its feels very dry. I can attest to its usefulness in the garden, not only as a fertilizer, but also as a soil conditioner. When it is rototilled or spaded into the soil the transformation of the soil is immediate. The drainage capacity of clay-type soils dramatically improves. Top dressing on good loamy soil provides plants with a rich fertilizer that never burns. I have found that adding it along with shredded leaves to sandy soil rapidly builds the humus level. In addition it can be used as a liquid fertilizer in the same manner as manure tea.

Composting of organic wastes in livestock and related industries, including farms, is gaining interest. Here is an opportunity for farmers to add to their income by charging companies and municipalities tipping fees to dump yard waste, manure, waste paper, woody by-products and food wastes on their land. These waste products can be turned into a high value resource marketable to garden centers, commercial growers, landscapers, or directly to the home gardener. The lawn and garden segment of retail sales is experiencing tremendous growth, and the market for a composted product is there. And who can argue against the increased yields and long-term benefits of improved soil structure realized when compost is applied to the soil. These facts coupled with the increasing costs of solid waste disposal will guarantee that composting on a large scale has a future.

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Patricia Merritt is an intern in the Cornell Cooperative Extension Master Gardener Program in Binghamton, N.Y., and lives and gardens in Wyalusing, Pa.

Caution to Readers

Herb Shortcuts/(page 16-18) September *Green Scene*

Writer Anne Cunningham advised readers to remove herbs from oil or freeze herb oil concentrates. A reader wrote saying we should emphasize more strongly that no fresh herbs in oil should be stored longer than three weeks in the refrigerator.

The reader enclosed *The Business of Herbs Newsletter,* which quoted the Oregon State University Extension Service:

"When raw or cooked vegetables or raw herbs are stored in oil, *Clostridium botulinium* bacteria can grow. These mixtures must be refrigerated to slow bacterial growth. After three weeks of refrigeration, the increased number of bacteria will become a food safety hazard. Therefore, these mixtures should not be refrigerated more than three weeks.

"When raw or cooked vegetables or raw herbs are immediately removed after flavoring the oil, the bacteria will not have a food source for growth. The flavored oil can then be stored safely at room temperature."

Anne Cunningham thanks the reader for calling the dangers to our attention and agrees that we should be as cautious as possible when preserving food.

The Plantfinder

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1827

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Deconstructing the Pool
A pool becomes a pond
See page 26



9.



29.

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in this issue

3. PHS Members Win Top Awards at Garden Writers Association of America Meeting in Alaska; Perennials Galore; and French Students Garden in Bucks County
Jean Byrne

4. The 1995 PHS Gold Medal Awards
Richard Hesselein

9. Perennials that Merit Attention
Patricia Taylor

13. Promising Perennials
Cheryl Lee Monroe

17. La Grande Histoire
Benjamin B. Platt

20. Corn At Its Sweetest
Dorothy Noble

26. Deconstructing the Pool
George Hough

29. Caladiums for a Tropical Touch
Kathleen A. Mills

31., 32. Growing Interests

33. Letters to the Editor

34. Classified Advertisements

CORRECTION:
The photo of the Azalea Woods at the Garden at Winterthur on page 30 of the July issue of *Green Scene,* which accompanied the article "Three Garden Experts Differ About Color in the Landscape," should have been credited to Linda Eirhart.

The Editor

Volume 23, Number 3 January/February 1995

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PHS Members Win Top Awards at Garden Writers Association of America Meeting in Alaska

Perennials Galore

French Students Garden in Bucks County

by Jean Byrne

PHS member Ray Rogers walked off with the top 1994 Quill and Trowel award given by the Garden Writers Association of America at their annual meeting held in Alaska in August. Rogers was editor of *The American Horticultural Society Encyclopedia of Gardening* (Dorling & Kindersley, Inc.), which received the Award of the Year and Best Book.

PHS member Charles Cresson won two awards for his books in the Art of Communication category: *Burpee: The Expert Gardener — Charles Cresson on the American Flower Garden* and *The Burpee American Gardening Series: Ornamental Trees* (both by Prentice Hall General Reference).

Allen Lacy, the third writer, is a PHS friend who has lectured at the Society and written for *Green Scene* (as have Rogers and Cresson). Lacy won the Award of Excellence for Best Writing in the Art of Garden Communication category for his book *Gardening with Groundcovers and Vines** (Harper Collins, N.Y., 1993). Super achievements when you think these writers were up against the best in the nation!

* * *

No, you're not seeing double, and yes two feature stories about perennials appear in this issue, and both stories came out of major perennial meetings in the Philadelphia area that drew a total of 1,300 people. Right now it doesn't seem possible to overdose on perennials.

The first story comes from Patricia Taylor who attended the Perennial Plant Association's annual symposium, held near Philadelphia in August (last year's meeting was in Vancouver). Seven hundred devotees crowded in from all over the country.

In October our own area's sizzling annual Perennials Conference for the Garden and Landscape Industry was held at Scott Arboretum (see page 14 for conference sponsors). Six hundred people heard some of the finest horticulturists, nursery growers and writers in the morning and, in the afternoon attended smaller sessions on marketing and on design. One of the most interesting sections of this conference is the Promising Plants Forum, which features eight perennial enthusiasts and gilt-edged growers.

Although the *Green Scene* deadline for this issue had passed around the time of the Conference, Cheryl Monroe in the fashion of a fire ripping down a California canyon during a drought contacted all of the participants in the Forum and gave them the opportunity to share information about their prize perennials with our readers. Her story appears on page 13.

So there you have it: lots of perennial suggestions for your winter garden dreaming and planning.

* * *

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When I was in Alaska for the Garden Writers Association of America annual meeting I met Ben Platt, a physician who was accompanying his wife Ellen Platt, proprietor of Meadowlark Farm (Orwigsburg, Pa.) and author of *Flower Crafts* and *Wreaths, Arrangements and Basket Decorations* (Rodale Press, Emmaus, Pa., 1993 and '94 respectively). In addition to doctoring Ben likes to write and to play timpani in the Schuylkill Symphony Orchestra in his spare time. Ben told me about how he and Ellen, while traveling in France to collect some unusual seeds and to attend some flower shows, were adopted by two young French horticultural students who decided they wanted to intern at the Platt's Bucks County farm for the summer. After I heard that Ben wrote about their French trip for the *New York Times* ("Traveling in France on 1,500 calories a day"), I invited him to tell our readers how he and Ellen met the interns in France and how they fared in rural Bucks County once they arrived here. Ben makes his *Green Scene* debut with La Grande Histoire on page 17.

*Allen Lacy will lecture on Gardening with Groundcovers and Vines at The Pennsylvania Horticultural Society on January 11 at 5:45 pm. Members $10/Guests $12. For reservations call Linda Davis at 625-8265.

THE 1995 PENNSYLVANIA HORTICULTURAL SOCIETY GOLD MEDAL PLANT AWARDS

by Richard Hesselein

Aesculus pavia

Two native trees, a native shrub and one charming exotic shrub provide interest for every season . . . four Gold Medal selections you'll want for your garden.



photo by William H. Frederick, Jr.



photo by Larry Albee

Top: Seed capsules of *Aesculus pavia.* In September the shiny green leaves show no signs of sun scorch after a long, hot summer. Location: Winterthur Museum • Garden • Library. **Bottom**: In full bloom, *Aesculus pavia* ignites the landscape with fiery blossoms. Location: Williamsburg Visitors Center.

When I joined the Gold Medal Plant Award committee in 1987, my contribution was primarily in the area of practicality: would the plants we were evaluating be strong survivors and were they readily available in the nursery trade?

As one who grows landscape material in field conditions as well as in containers, survival and availability are among my major concerns when choosing species in which we invest time and effort at the nursery. The Committee as well believes it's important to put our recommendations behind plants that the public can find in nurseries, as well as plants that will thrive in the landscape, adding year-round interest and beauty. After passionate debate, we selected *Aesculus pavia, Halesia diptera magniflora, Heptacodium miconioides* and *Ilex verticillata* 'Winter Red.'

Aesculus pavia

Aesculus pavia, the red buckeye, is a native horse chestnut that deserves much more prominence in large-scale landscapes. It can be grown as a very large shrub or a small tree, and flourishes well in both full sun or at the edge of a woods. The foliage is a lustrous, coarse-textured dark green, much more resistant to mildew and leaf blotch than *Aesculus hippocastanum.* The 3- to 6-in. long panicles are a vivid coral red, prominently displayed all over the crown of the plant. Dr. Richard W. Lighty, director of the Mount Cuba Center, says that it makes " . . . a marvelous hummingbird tree . . . I've seen as many as 30 hummingbirds around a 25-ft. tree at Brookside Gardens." Although the red buckeye is somewhat ungainly in its growth for the first five to eight years, it is a precocious, enthusiastic bloomer, and is well worth some patience as it passes through its short, awkward adolescence.

The growth habit of *Aesculus pavia* is rounded and somewhat spreading. It reaches a height of 20 ft. readily in cultivation, with a maximum growth in the wild of up to 35 ft. Its eventual spread will be pretty much equal to its height in full sun, whether grown as a shrub or a small tree. The fall color is yellow, and it drops its leaves early like all horse chestnuts. The fruit is the usual shiny brown nut, contained before ripening in a smooth tan capsule. It grows well in loamy, well-drained soil, and in Darrel Apps's opinion, it's "the perfect large plant to edge a woods," with any foreground planting of perennials.

Hardy in Zones 6A to 9A.

Halesia diptera magniflora



photo by Larry Albee



photo by Larry Albee

Top: The flowers of *Halesia diptera magniflora* are twice the size of the ordinary silverbell. Location: Longwood Gardens. **Bottom**: *Lonicera sempervirens* 'Cedar Lane' growing through *Halesia diptera magniflora* puts on a great display in the home garden of Gold Medal Plant Award committee member Richard Lighty.

Halesia diptera magniflora

Halesia diptera magniflora, the large-flowered Florida silver bell, is one of my personal favorites in the category of magnificent flowering native trees. It has absolutely everything going for it except fame. Richard Lighty's observation sums it up most distinctly: " . . . an outstanding medium-sized tree that doubles as a shade tree, and a flowering tree that rivals flowering cherries." It's native to the Florida panhandle, but performs well much further north (to Zone 6 and perhaps Zone 5) in moist, loamy soil. It thrives in shady, woodland settings, as well as locations with full sun. The foliage is a clean, dark green; more similar to the *Styrax obassia* than to other *Halesia* species. In my experience it is completely disease- and pest-resistant. According to Lighty's excellent article in the June 15, 1993, issue of *American Nurseryman, Halesia diptera magniflora* will live for 75 years or more, and will reach a height of 50 ft.

The greatest delight this hardy, fast-growing plant has to offer is unquestionably its flower display. Phil Normandy, of Brookside Gardens, notes that "the flowers are large and showy and are produced on very young plants." My observation is that the flowers are almost twice the size of those of *Halesia carolina* or *H. monticola.* In this geographic area (Zone 7), the Florida silver bell blooms in mid-May for two weeks. The tree is literally covered with white, hanging bell-like flowers, which coat the ground with a carpet of white when they drop. They are borne in clusters of two to four flowers on the nodes of the last year's growth, and are followed by groups of brown, two-winged, interesting fruit hanging on into winter.

This *Halesia* is a vigorous grower, which helps explain the start of its wonderful flower display in three to four years from germination. Since the plant grows 2 ft to 3 ft. per year, it lends itself easily to a single stem, tree shape. It can grow rapidly enough when young to become top-heavy, and then it may require some staking. Its clear commitment to becoming a single-stem tree without significant pruning, however, makes it a nursery delight.

Hardy to Zone 6.

continued

Heptacodium miconioides



photo by Larry Albee



photo by Larry Albee

Heptacodium miconioides works well in a garden setting. Planted behind ornamental grasses it creates a strong visual interest with its blossoms in September. Location: Garden of William H. Frederick, Jr.

Heptacodium miconioides

Heptacodium miconioides, the seven son flower, is the only one of the four Gold Medal selections not a native American plant. It came to North America from China recently, when the Arnold Arboretum in Boston and the National Arboretum in Washington, D.C. introduced it into cultivation. It was first brought to the attention of the Western world as recently as 1916, and seems to be rare in China to this day.

Heptacodium, a rapid-growing plant, can either be grown as a tall arching multi-stemmed shrub of 6 ft. to 10 ft., or be encouraged to become a small, single-stem tree of 15 ft. to 20 ft. It shows great tolerance in its growing conditions; William Heyser of Heyser Landscaping, Inc. asserts that "with its . . . adaptability to wet and dry, acid and alkaline soils, and fragrant fall flowers, it will become a much-used tree." The leaves appear somewhat early in the spring, and mature to a handsome dark green with a striking textured look. The yellow fall color underwhelms somewhat, but *Heptacodium* retains its leaves until quite late. The bark, very attractive in the winter, shows a paper-like quality as it exfoliates in light tan strips. Tom Dilatush of Dilatush Nurseries says "*Heptacodium* is one tough plant. . . . I'm sure that you can kill it if you try . . . but the majority of consumers is unlikely to have a problem with it."

The real joy of this new plant is unquestionably its flower and fruit display. The small, fragrant, creamy-white flowers are borne plentifully from mid-August to the end of September, a time when very little else attracts one's attention in the flowering tree landscape. They resemble honeysuckle flowers somewhat, and are found in groups of seven on each stem, hence the name "seven son flower" in China. After the flowers drop, the calyces remain and continue growing, turning a reddish hue. The fruit is even more spectacular, as it ripens from rose to a rich purple color. The display lasts for several weeks into the fall, and then finally fades into a tan obscurity. *Heptacodium* blooms best and stays most compact in full sun, but it also flourishes in shade, making it an excellent candidate for the edge of wooded areas. Since it tolerates old well, it's well worth developing a long- relationship with this plant.

rdy to Zone 4.

Ilex verticillata 'Winter Red'



photo by Larry Albee



photo by Larry Albee

Top: *Ilex verticillata* 'Winter Red' begins its show in August and keeps performing right through the winter with bright red berries, larger than most other cultivars. **Bottom**: 'Winter Red' works well as a background planting in the shrub border. Retiring during the spring and summer, 'Winter Red' starts to show off when the rest of the border begins to slow down. Location: Longwood Gardens.

***Ilex verticillata* 'Winter Red'**

This is one of my personal favorites in the shrub world. Almost any winterberry is appealing in the winter, but as Richard Lighty states, "This is the 'standard' for winterberries, (with) larger, bright red berries held in good condition longer" than many other cultivars in our area.

Ilex verticillata is a tough, adaptable plant. It prefers full sun for the optimum fruit set, but anyone who has walked in swampy lowland areas on the East Coast during the winter runs the chance of coming upon one thriving in total shade, glowing with its surprising red berries. 'Winter Red' puts bigger, more plentiful fruit on its branches, to the point where one often cannot see the wood underneath them. The color is a particularly glistening deep red, and, as Phil Normandy remarks, it is " . . . especially attractive where early morning and afternoon winter sun illuminates the berries." Darrel Apps is enthusiastic about its precocious fruiting; in his experience it begins to fruit at one to two years of age. Birds do not seem to eat the fruit until early spring, when all other more palatable fruits are gone, so 'Winter Red' is there to be enjoyed all winter.

The foliage, an unobtrusive green, should be used as a backdrop behind something more interesting in the spring and summer. The growth is multi-stemmed and suckering. 'Winter Red' will eventually reach 10 to 12 ft. If you periodically cut older branches at ground level, you will find that the fruit display stays at its most spectacular. It seems not to suffer from pests or diseases, and no winter landscape is complete without one or more. It is dioecious, so you will need a pollinator somewhere in the vicinity.

A 1991 Gold Medal winner, *Ilex* x 'Harvest Red' has an excellent growth habit with smaller fruit than 'Winter Red.' 'Harvest Red' is a great plant for the naturalistic setting, branched to the ground with abundant fruit. 'Winter Red' should be planted where you want to make a statement!

Hardy to Zone 4.

continued

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•

Richard Hesselein is president of Princeton Nurseries and he chairs the Gold Medal Plant Award Committee.



Perennials that Merit Attention

by Patricia A. Taylor

Those who grow or market perennials have their favorites. Here's a selection of little-known, yet absolutely beautiful, plants touted at last summer's Perennial Plant Association symposium in Philadelphia.

Perennial plant people are often an insatiable lot, a quality most evident at the 12th Annual Perennial Plant Association Symposium held in Philadelphia last August. There they were at 8 in the evening, nearly 700 conferees from around the country and even overseas, packed into a room at the Adams Mark Hotel on City Line Avenue, listening avidly to their peers describe perennials that merit attention.

They'd been meeting since early in the day to learn about new or overlooked outstanding plants despite the fact that they grew or marketed hundreds of such garden gems every day of their business lives.

I was one of the few garden writers in the group, and I was as obsessivly acquisitive as the best of them. While I have no idea how I will be able to cram the following selection of meritorious plants into my already packed garden beds, I will somehow do so. All, by the way, are hardy in the *Green Scene* circulation areas.

What could an Englishman possibly have to say of interest to American gardeners on a hot, muggy August evening? **Bob Brown** of Cotswold Garden Flowers in Evesham came through with *Geranium pyrenaicum* 'Bill Wallis,' demonstrating that what some consider the mother country of gardening still has a lot to teach.

The species plant, *Hortus III* says, is weedy throughout Europe. This stunning cultivar, introduced in England in 1989 and covered with intense violet blooms, is hardy throughout Great Britain at the very least. Brown says the geranium covers Zones 6-9 and believes the plant is definitely worth a try in Zone 5.

Here's some astouding news: in a sheltered spot, this perennial blooms all year long. In more exposed situations during nasty winters, it will flower from March through November. Plant seed in a pot and it will flower on 12-inch bushy plants six weeks later.

Is this too good to be true? Maybe. Brown did admit that the flowering slows down in July. That probably means it comes to a screeching halt on this side of the Atlantic in both July and August.



photo by Bob Brown

Geranium pyrenaicum 'Bill Wallis' starts its exceptionally long blooming period just six weeks after direct seeding.

In a sheltered spot,* Geranium pyrenaicum *blooms all year long. In more exposed situations during nasty winters, it will flower from March through November. Plant seed in a pot and it will flower on 12-inch bushy plants six weeks later.

Nevertheless, for a spring and fall no-fuss charmer, this plant is a strong candidate.

Stephanie Cohen, representing both Temple University and Waterloo Gardens in Devon, Pennsylvania, was introduced as the "Dr. Ruth" of the perennial world. She cheerfully admits that she doesn't quite reach 5 feet and that she loves to gaze on plants that are taller than she is, particularly *Artemisia lactiflora* 'Guizho' (or, some people insist, 'Guhizo'). Its leaves are darker and more dissected than the species plant and its stems are a dark purple. This carefree plant will grow in full sun or light shade in average soil.

Audible sighs bounched across the audience when Cohen displayed the slide of *Campanula persicifolia* 'Chettle Charm.' This is an ethereal flower with white cups edged in a lovely pale blue. It grows 18 to 24 inches tall in full sun and average soil. If deadheaded, it will bloom throughout summer.

Cohen's third and last choice: a fragrant, pale yellow sundrop *(Oenothera odorata),* which grows 24 to 30 inches tall. As the flower fades, Cohen explained, it turns a peach color. After an early summer flush, the blooms appear sporadically throughout the remainder of the growing season. If you are a fan of pale yellows, as I am, you would do well to heed her suggestion.

John Friel of Green Leaf Enterprises in Leola, Pennsylvania, recommended just one plant: *Heuchera micrantha* ("or *americana,*" he said, "as the jury is still out on the nomenclature") 'Bressingham Bronze.' The plant is patented ("as so many are these days," Friel lamented) by Alan Bloom, England's great perennial plant resource. Friel argued it is a much better selection than *H.* 'Palace Purple,' being darker, bolder, and bigger — "a truly outstanding foliage plant."

Barry Glick of Sunshine Farm & Gardens in Renick, West Virginia, won my unofficial vote for the best find of the evening: *Spiranthes odorata* 'Chadds Ford.' This is an orchid — what, me grow an orchid? — found in a Delaware roadside ditch in 1956.

It has received the prestigious Certificate of Cultural Merit from the American Orchid Society and has been pampered in greenhouses across the country for decades. "It's really an outdoor plant," Glick explained, "and one that is exceptionally easy to grow in any moist, well-drained soil in deep to light shade." It is three times more floriferous than the species plant, has 30-inch spires of fragrant flowers (the scent is reminiscent of vanilla), and blooms late summer through fall. Wow!

Glick also discussed two other meritorious perennials: *Primula polyantha* 'Gold Laced' and *Tricyrtis hirta* 'Angel's Halo.' The former is a yellow primrose with petals banded in a crisp, dark red. It is an old-fashioned plant — grown in British gardens as far back as the 17th century — that fell out of favor in this century. When the remaining nursery that continued to breed it was heavily bombed during World War II, a dedicated primrose lover managed to salvage enough seed to keep the strain going.

The *Tricyrtis* is a standout in moist shade gardens in late summer. It features a gold throat, pruple halo, lavender stamens, and icy white petals. An erect plant that does not need staking, it has three to five buds in each axil from the ground up.

As a further inducement to the many tradespeople in the audience, Glick said the plant is easily propagated. And for those without shade, Glick mentioned that he has been testing the plant in hot, dry sun and finds it still presentable under such conditions.

Kim Hawks from Niche Gardens in Chapel Hill put in kind words for two native plants: *Stokesia laevis* 'Mary Gregory' and *Helianthus giganteus* 'Sheila's Sunshine.' Both — yes both — are pale yellow and won my immediate attention.

The *Stokesia,* Hawks explained, grew for about 20 years in the South Carolina garden of Mary Gregory. She wrote about it in the South Carolina Extension Bulletin and one of Hawks' customers brought it to her attention. Gregory agreed to have it introduced to the trade as long as it bore her name. When Hawks first advertised it in her catalog, she sold out immediately. She has now retrenched and is carefully building up adequate stock. Look for this plant in fall 1995.

The *Helianthus giganteus* was found growing wild in fields near Chapel Hill. Most giant sunflowers are a warm yellow; this one is a soft pastel. Hawks collected seed and grew it at her nursery, where her customers urged her to put its late summer display of flowers on top of 7-foot stems into production.

Sheila Goff, a superb local gardener, was quite "politely persistent" about this, Hawks explained, and in honor of both her efforts and expertise, Hawks named the plant 'Sheila's Sunshine.' With its lovely color and light, airy form, this is a garden giant that adds grace rather than bulk to borders.

continued

Perennial Plant Association

Where do professional perennial plant lovers go in search of fellow colleagues revelling in the same madness? They become members of the Perennial Plant Association (PPA), a national not-for-profit organization that encourages the garden takeover efforts of perennial enthusiasts.

PPA is dedicated to improving the perennial plant industry through education to enhance the production, promotion and use of perennial plants. How? They sponsor symposia, regional and national, such as the one Philadelphia hosted this summer with some 700 registrants; they publish a membership directory where one can locate colleagues, as well as garden guides and other publications; they fund research; they promote the Perennial Plant of the Year; they develop display gardens and they even fuss with nomenclature.

Visit the PHS Library or your area horticultural library to check out the quarterly publications and symposium proceedings. For additional information and a membership brochure, contact:

Perennial Plant Association
3383 Schirtzinger Road
Hilliard, OH 43026
1-614-771-8431

Cheryl Lee Monroe



courtesy of Stephanie Cohen

Artemisia lactiflora 'Guizho.' The high feathery artemisia bursts forth from dark purple stems.



courtesy of Stephanie Cohen

Campanula persicifolia 'Chettle Charm.' If deadheaded, 'Chettle Charm' bellflower will bloom throughout summer.



photo by Stephanie Cohen

Oenothera odorata. The flowers on this fragrant sundrop age from a pale yellow to a soft peach.



photo by Jeanne Frett

Spiranthes odorata 'Chadds Ford.' Given moist, well-drained soil, the 'Chadds Ford' orchid will perfume late summer gardens with a scent reminiscent of vanilla.

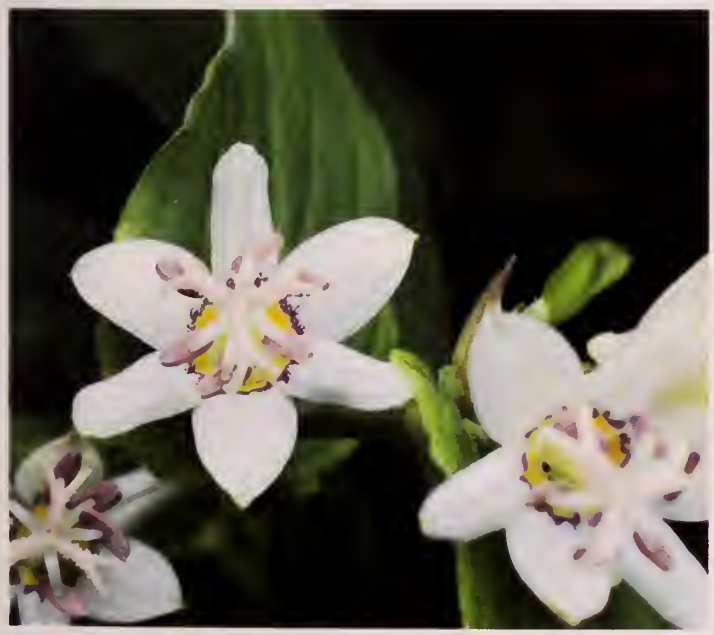


photo by Barry Glick

Tricyrtis hirta 'Angel's Halo.' The icy white petals of 'Angel's Halo' glisten in late summer settings.



photo by Kim Hawks

Stokesia laevis 'Mary Gregory.' This pale yellow stoke's aster honors Mary Gregory, who found it growing in her South Carolina garden.

When the remaining nursery that continued to breed* Primula polyantha *'Gold Laced' was heavily bombed during World War II, a dedicated primrose lover managed to salvage enough seed to keep the strain going.



photo by Dan Heims

At left: *Heuchera americana* 'Ring of Fire.' At first frost, the edge on the 'Ring of Fire' heuchera turns a brilliant coral. **Bottom**: *Helianthus giganteus* 'Sheila's Sunshine.' A tall sunflower adds grace rather than bulk to borders.



photo by Kim Hawks

Sources

With the exception of the pale yellow *Stokesia,* all plants in this article are now available at either garden centers or through the mail.

Those wanting the *Geranium pyrenaicum* 'Bill Wallis' can obtain seed from:

Bob Brown
1, Waterside, Evesham
Worcestershire WR11 6BS
England
(Telephone: 0386-47337 after 6 pm). Brown will include a bill with your order.

The addresses for the two retail mail order firms mentioned in this article are:

Niche Gardens
1111 Dawson Road
Chapel Hill, NC 27516
919/967-0078
Catalog: $3

Sunshine Farm & Gardens
Route 5
Renick, WV 24966
304/497-3163
Catalog: Free with SASE

Dan Heims of Terra Nova Nursery in Portland, Oregon, is gaining horticultural renown as the man who is revolutionizing gardeners' conceptions of the genus *Heuchera.* At some time in his life Heims must have kissed the Blarney Stone, for he has a way of describing plants that make you want to try them even if you don't particularly like the slide that is illustrating his point.

He showed, for example, *H. americana* 'Ring of Fire' and I was not impressed. While the new growth leaves were stunning — silver suffused with purple — the older foliage looked like it had a fungal disease on the edges.

Just wait, Heims crooned in his soothing manner. At the first frost, the edge turns a brilliant coral and adds excitement and interest to the late-season garden. Furthermore, he continued, this selection takes heat and humidity, resists mildew, and is a superb deep shade wildflower.

When not tinkering with *Heuchera,* Heims dabbles in *Pulmonaria.* He's come up with two with silver-splashed leaves that are mildew-resistant. *P.* 'Baby Blue' has large open flowers resting on top of the foliage and *P.* 'Regal Ruffles' has, as its name implies, ruffled blue flowers.

Truly, we gardeners are fortunate that the members of the Perennial Plant Association are not only acquisitive but also generous in their eagerness to share information about wonderful new plants and to help us introduce them to our gardens.

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Patricia A. Taylor shares information about her plant finds in her books on *Easy Care Shade Flowers,* 1993, and *Easy Care Perennials,* 1989, both published by Simon & Schuster, New York.

Promising Perennials

by Cheryl Lee Monroe

A second conference, this one in October, as ebullient and well-attended as the first in August, proves we haven't heard the last word in perennials.

photo by L. Von Allmen



Echinacea tennesseensis.

continued

Promising Perennials



photo by J. Wachter

Monarda didyma 'Colrain Red.'

The butterflies adore the nectar of* Liatris ligulistylis, *fighting for space on the flowers; the goldfinches clamor for seed, fighting Prairie Nursery for their share of the crop.



photo by Lisa Roper

Rudbeckia triloba.

It's been a hot place to be every October for 11 years! So hot, more than 600 perennial lovers clamor to attend the Perennial Conference for the Garden and Landscape Industry held at Swarthmore College each year. The co-sponsors, Co-operative Extension, The Pennsylvania State University; The Hardy Plant Society; Longwood Gardens; The Pennsylvania Horticultural Society; Pennsylvania Nurserymen's Association, Chapter E-1; and The Scott Arboretum of Swarthmore College, plan and labor each year to bring to the Delaware Valley what's most current in perennials and loads of support for our addiction.

A favorite feature of the conference, similar to the Perennial Plant Association's symposium, is the Promising Plants Forum. A place to get those ever-popular laundry lists of plants, it's an opportunity to hear some of the most enthusiastic perennial lovers expound on garden-worthy plants. Here's what they believe we should be lusting after:

Sinclair Adam, owner of Dunvegan Nursery in West Chester, Pa., talked about the virtues of:

Tiarella cordifolia 'Winterglow' whose advantage is red and yellow foliage; hanging around through winter, it can cheer even the bleakest of days. Spring follows with four to six weeks of delicate white flowers.

Phlox paniculata 'Shortwood' has florets smaller than its parent *(P. paniculata* 'Eva Cullem') but panicles are packed with flowers for no less than two months from late July through September. As a bonus, it exhibits notable mildew resistance.

Heuchera 'Molly Bush' steps into the limelight for its uniformity, which most heucheras exhibit a lack of. This selection does not aspire to the great sizes some *Heuchera* 'Palace Purple' attain, staying a moderate well-behaved size.

Tony Avent, owner of Juniper Level Botanical Gardens and Plant Delights Nursery in Raleigh, N.C., enjoys:

Bergenia ciliata, a hairy bergenia (or as Avent's catalog calls it, Harry Bergenia) newly arrived from China. It does not melt at the first sign of heat, like most bergenias;

continued



photo by Lisa Roper

Origanum rotundifolium seeded in stone steps.

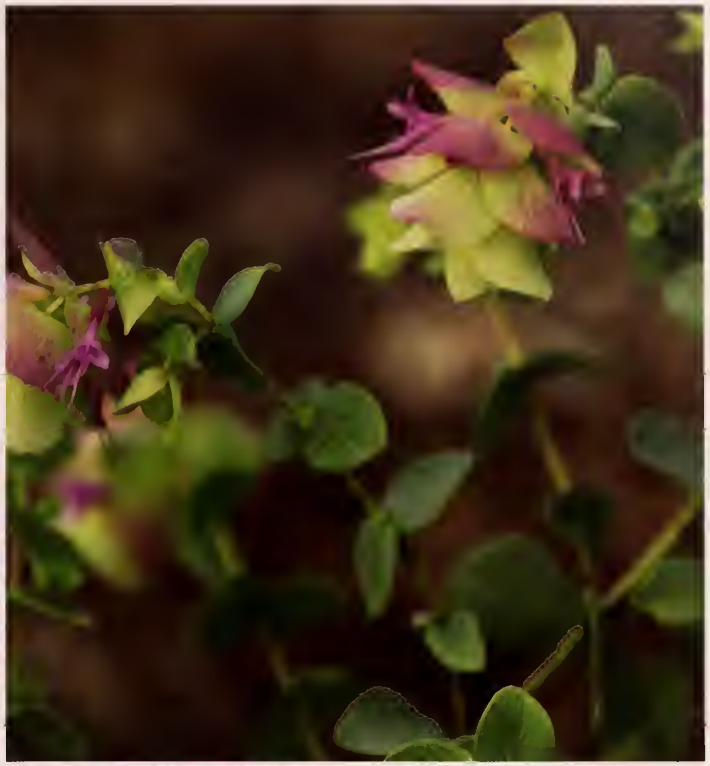


photo by Lisa Roper

Origanum rotundifolium 'Kent Beauty.'



photo by Betty Sparks

Salvia verticillata 'Purple Rain.'



photo by Betty Sparks

Salvia koyamae at Scott Arboretum.

its hairy leaves reminiscent of the african violet, survive handsomely all summer and have the courtesy to shed come fall. Other bergenia become ragged from heat and have the audacity to hold their leaves throughout winter. What more can one ask for — flowers, 6 inches across with reddish maroon bands.

Miscanthus sinensis 'Cabaret,' hailing from Japan, is considered the most beautiful of the miscanthus, its white variegation a band down the center of the leaf. Dramatically different than other variegated selections, it is also reluctant to flop. What more can you ask for — sources!

Neil Diboll, president of Prairie Nursery in Wisconsin, wants ornamental plant enthusiasts to consider:

Liatris ligulistylis, a plant sensational at attracting Monarch butterflies and goldfinches. The butterflies adore the nectar, fighting for space on the flowers; the goldfinches clamor for seed, fighting Prairie Nursery for their share of the crop. If wildlife does not satiate your needs, its flower buds are blood red, opening to deep pink and depending on conditions (it loves rich, semi-moist soil) it can grow 2-4 feet.

Sporobolus heterolepis, looking like the "Cousin It" grass if you've watched the Addams Family, is a clumping grass, fine textured, deep green, adores poor, dry, preferably sandy soil; and, it's wildly fragrant.

Richard Hawke, as Plant Evaluation coordinator at the Chicago Botanic Garden, has plenty of research to support his choices:

Echinacea tennesseensis — On the federal endangered list it is a good summer garden plant; insects pass it up, it's not terribly thirsty and tolerates drought, and blooms from late June until October. As an encore, its purple petals face upward unlike the typical drooping stance of *E. purpurea.*

Monarda didyma 'Colrain Red,' having spent its trial period snuggling up to 46 other *Monarda* selections, refused the advances of powdery mildew and held tightly to its leaves. If that's not enough for monarda lovers, its stems are stout, no case of the flops here, its flowers a purplish red.

Richard W. Lighty, director of the Mt. Cuba Center for the Study of Piedmont Flora, explored the treasures Mt. Cuba is responsible for:

Helianthus x multiflorus 'Capenoch Star.' Sunflowers are the current rage and this selection has great 5-in. lemon-yellow, anemone-like flowers, is excellent in masses, and is also tops as a cut flower. Brand spanking new, we will have to await 1996 to obtain this plant from Holbrook Farm and Nursery.

Solidago spacelata 'Golden Fleece' — a solidago unconcerned with reaching for September skies; hugs the ground at 15 inches, its flowers splaying out. The foliage remains steadfast; holding its place at the front of the border until fall when other fall-blooming perennials are singing at 3 ft. plus. After all, the front of the border needs attention and those mums need companionship.

Heuchera americana 'Garnet,' yet another of the heuchera to choose from, owes its fame to sheer toughness, the most long-lasting of the species. Following in *H.* 'Palace Purple' footsteps, it was the next heuchera to be selected solely for foliage, its purple foliage gaining momentum as summer cools off and fall arrives.

Renny Reynolds, proprietor of Renny The Perennial Farm in Wrightstown, Pa., has old favorites that he relishes:

Petasites japonicus giganteus has huge, abundant leaves and is perfect sited along streams. It also has far-reaching roots and needs large areas, but if you are game or relish vigilance, it looks great in summer when stream beds dry, continuing to lend the appearance of water. Not to be outdone by its foliage, fragrant flowers herald spring early, starting in January and February.

Aquilegia 'Woodside Garden' — fabulous in spring, its foliage is the most golden of the aquilegia; yellow leaves splotched with different greens, and its flowers purple or white. The chartruese foliage is stunning, seated next to a hardy geranium it will knock you out.

Lisa Roper, horticulturist at Chanticleer in Wayne, Pa., brought us:

Rudbeckia triloba with a golden profusion of late season flowers. Blooming longer than other rudbeckia (imagine) it's taller and terrific for late season.

Origanum 'Kent Beauty' has outstanding flower bracts blushing a rose color. A small, delicate, jewel-like flower it gives a great performance from spring through fall and is best used at the front of a border or on a rock wall.

Betty Sparks, a Hardy Plant Society board member, raves about the following salvias:

Salvia verticillata 'Purple Rain.' The straight species, *S. verticillata* has no claim to fame, but this selection has deeper color and blooms longer, has height, is hardy, blooms from early summer into fall, and earns the title of workhorse.

Salvia koyamae, also hardy, blooms in the fall and adores the shade, its soft creamy-yellow flowers highlighted by the dappled light a shady home provides.

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Cheryl Lee Monroe is a horticulturist and writer who gardens in Maryland.

Sources

Holbrook Farm and Nursery
P.O. Box 368
15 Lance Road
Fletcher, NC 28732-0368
704-891-7790

Niche Gardens
111 Dawson Road
Chapel Hill, NC 27516
919-967-0078

Plant Delights Nursery
9241 Saul Road
Raleigh, NC 27603
919-772-4794

Prairie Nursery
P.O. Box 306
Westfield, WI 53964
608-296-3679

Roslyn Nursery
211 Burrs Lane
Dix Hill, NY 11746
516-643-9347

Sunlight Gardens
Rt. 1, Box 600 A
Andersonville, TN 37705
615-494-8237

We Du Nurseries
Rt. 5, Box 724
Marian, NC 28752-9338
704-738-8300



LA GRANDE HISTOIRE

by Benjamin B. Platt

A chance meeting at a flower show in France draws two young French horticultural students to a Bucks County farm for a summer internship.

I began my 55th birthday quietly, alone with my wife in a taxicab going to a flower show at Versailles. Within a matter of hours, our group had exploded to 50, and we were on a bus with 48 French students of horticulture, lost on the back roads of France, somewhere between Versailles and Courson.

My wife, Ellen, is a garden writer and her first book, *Flower Crafts* (Rodale Press, Emmaus, Pa., 1993), had recently been published. We were in France to research European garden books. Also, we were searching for seeds of *Nigella orientalis,* a dried pod being imported into the United States, but whose seeds were then not available to American gardeners.

Our first stop in France was at La Forestiere, a beautiful hotel with a first-rate restaurant in Saint-Germain-en-Laye, a suburb of Paris. After dinner, we strolled through town, struggling to stay awake after our overnight flight. Every flower shop came under close scrutiny for new designs and arrangements. In one window a poster proclaimed "Les Floralies de Versailles" was now open to the public. We entered the shop and spoke to the florist. She assured us the show was well known and worth a visit.

The next morning, invigorated by a night's sleep, French bread, croissants, and coffee, we left by cab for Versailles. The palace of Versailles is huge, but our driver found L'Orangerie, a portion of the palace that housed the exposition. We were at once struck with the proportions of the show. The walls of L'Orangerie were immense, with ceilings at least 50 feet high, dwarfing even the largest of displays. Once we were able to divorce the show from the architecture, we were able to concentrate on the exhibits, which were beautiful and varied. There were arrangements of flowers, fresh and dried; combinations of flowers with fresh fruits and vegetables were particularly popular. The show was not crowded, and we strolled leisurely past horticulturists, landscape architects and floral designers. At each booth, we chatted, praised, and felt ourselves being absorbed into the French garden life.

An invitation to a show

We stopped at the booth of the grand Chateau Villandry, whose formal gardens highlight fruits and vegetables. When Ellen inquired about *Nigella orientalis,* our hostess went into a long discussion about the seed merchants of Paris, wholesale and retail, and even drew a little map to mark their location near the Seine. She then entered into a conversation with a gentleman on our left, in very rapid French, which I did not completely understand. She then turned back to us, and speaking a bit more slowly, introduced us to a professor of horticulture. He was visiting Versailles with a group of students and was about to leave for another flower show at Courson where we might find more seeds, and perhaps the elusive *Nigella.* His bus had two empty seats. Would we care to join him?



illustration by Julie Baxendell

I was stunned by the invitation and thought that perhaps I had lost something in the translation, and asked for a repetition. Ellen understands spoken French better than I, and she confirmed that we were being invited to join a class of French horticulture students on a bus ride to Courson to see another flower show. I looked at Ellen, we shrugged, and said "Oui, merci."

"Bon," said our professor, and gestured for us to follow. We were now in the company of Monsieur Auguste Predour, Professeur of Horticulture at L'Institute de Horticulture et Agricole, at Genech, in northern France, close to Lille. After a quick sandwich, we boarded the bus with 48 young French students.

Monsieur Predour, who spoke no English at all, took the microphone and explained to his students that they now had two guests on board. "Madame is a flower farmer [from Pennsylvania], specializing in dried flowers, and has just written her first book. She is here to study French floral decorations and visit seed shops. Monsieur is a doctor who cares for the elderly. Please make our guests welcome. Come speak to them, practice your English, and help them about the show."

As we wandered through the French countryside, a light rain fell, the rhythm of the windshield washers added to music of the afternoon. We chatted with several young students, who came forward to bravely try their English. They had all studied English at some time during their educations, but they rarely had had the

LA GRANDE HISTOIRE

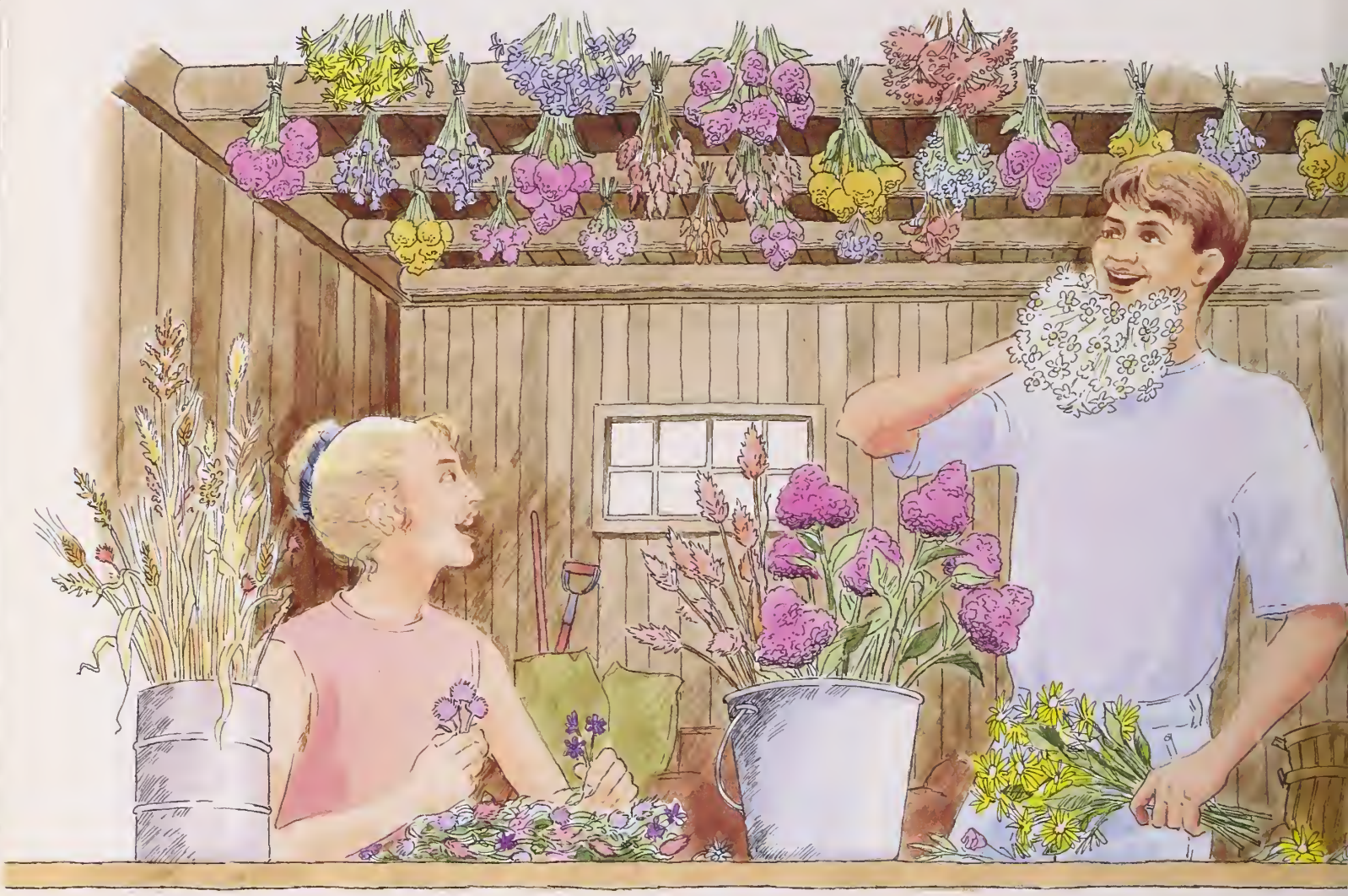


illustration by Julie Baxendell

chance for conversation, and we spoke in an easy mixture of French and English. They were a delightful group of young men and women, about 18 or 19, in a two-year program leading to a baccalaureate degree, extremely important for further advancement and employment in France.

Where's Pennsylvania?

Politely, they inquired about our trip, our itinerary, where had we been, where were we going? Ah, Bordeaux, you will love the wines. Where was Ellen's flower farm? What did she grow? Did she have any job openings for students? What did we think of Paris? How did she dry her flowers? Where was Orwigsburg? Where was Pennsylvania? Were there any jobs in Pennsylvania?

We finally arrived at Courson and left the bus in a warm soft autumn drizzle. It is a small chateau, nowhere near the beaten path, struggling to raise money for its upkeep. It has lovely grounds, a beautiful verdant forest, very little indoor decorations or furnishings, and receives few visitors except for the garden shows. Twice a year, in spring and autumn, the garden show arises, Brigadoon-like, out of the mists. It is, for me, the quintessential French garden show, low key but stylish.

Monks in long robes sold potted herbs and perennials.

The drizzle continued throughout the afternoon, which only added to the day, blurring the edges, softening the colors. I felt we were strolling through a fine Renoir. We slipped a bit here and there, and got mud on our shoes and cuffs, but it was French mud and therefore welcome. The exhibitors, all in white tents, merely dropped the tent sides to stay dry, and proceeded with business as usual. This was a garden show and sale. Everything was for sale. There were displays of the old world and new, apples newly hybridized, and apples from hundred-year-old trees. Lawn mowers, trowels, clippers, garden carts, all the paraphernalia of the garden. Monks in long robes sold potted herbs and perennials. Flowers fresh and dried in all forms and designs. And no *Nigella orientalis.*

Students joined us and left throughout the afternoon, all helpful and delighted to struggle in English. Damp and happy, we eventually found the food tent. We sat under the gay white tent, a soft tattoo of rain on the canvas, eating French bread and cheese and wine, counting ourselves among the truly blessed.

When it came time to leave, we had found another ride back to Versailles, and I went to the bus to reclaim our few articles. One student accompanied me. who said he and a friend would definitely love to come to the states, it was their dream. I assured him he would find a warm welcome. We bid everybody a fond au revoir, and left our happy bus. Back in St. Germain-en-Laye, muddy, tired, and happy, we were aware that somehow we were in a magical day, one not likely to be repeated soon if ever.

A request from abroad

That winter, as our garden slept in





January, we received mail from France:

"Dear sir, we are two French students, we met you in Paris at Versailles. You told us we can come if we want the next summer. So, we would like to ask you if you can give us more informations. . . . "

It was a letter from two students, Valerie and Sebastien, includings their CV's. I then recalled it had been Sebastien who had accompanied me to the bus before we left Courson.

" . . . when can we come? What kind of job would we be doing? Where would we stay? This experience seems very interesting to us because we could improve our English language and also discover a new country. We would be very glad if you would give us a positive answer."

Somewhat amazed, we realized that our magical day in France was continuing. We wrote back describing Ellen's flower farm and what work would be required. They explained they would have to come for eight weeks to satisfy their requirement for *le stage,* a work-study program that is part of their curriculum. Would Ellen please fill in these forms? Struggling with an official French four-page document, Ellen eventually became *"le maitre de stage,"* certainly the first person in Orwigsburg, if not Pennsylvania, to be so honored.

More letters and phone calls crossed the Atlantic. We spoke and wrote to two sets of bewildered parents who were sending their dearest possessions to strangers whom they had met on a bus. Final plans were made, and in early June, two French students strode through the arrival gates at JFK, scanning the crowd and hoping for that instant eye contact of recognition. Slightly incredulous, we embraced and drove our two weary travelers on the first leg of their adventure, to our farm in Pennsylvania.

Our visitors arrive

Once settled into our spacious farm house, we found our lives dramatically changed. Our own three children now grown and living elsewhere, Ellen and I had been enjoying our empty nest. Suddenly we were once again a family with teenagers, except half of us spoke a different language. However, there is truth in the adage that it is easier to care for someone else's children rather than one's own. Our two young visitors were pleasant, cooperative, eager to learn, and never fought over who was taking up more than their half of the back seat. They looked on us as coconspirators in a delicious adventure, and we became, in addition to local parents, great friends.

The garden dominated their summer. Mornings began early to avoid the midday heat. The operative word became *"desherbe,"* French for weeding. Two and a half acres of flowers demands considerable labor, and they spent many hours with Ellen among the plants, using the Latin names of plants pronounced with either French or Philadelphia accents.

They participated in all phases of Ellen's flower operation. Besides maintaining the long flower beds, home to more than 250 species, they harvested and prepared the flowers for drying. Since most of the flowers are air dried, they formed bunches, secured them with rubber bands, and hung them upside down. As the summer progressed, the barn filled with large masses of color, forming an impressionistic whole that caused first-time visitors to stop in surprise, as if they had walked into a painting of Monet or Degas.

Flower shows and exhibitions are a major part of Ellen's enterprise, and our students gladly went along. A small booth at the Kutztown Folk Festival resulted in a picture of Valerie, in Pennsylvania Dutch dress, on the front page of our local newspaper.

"All my life in France I never was in the paper," she said. "Now I'm here only 48 hours and I'm on the front page. It's unbelievable!"

Ellen's second book, *Wreaths, Arrangements, and Basket Decorations* (Rodale Press, Emmaus, Pa., 1994), was in production that summer, so our students had a first-hand glimpse of garden writing and book production. Ellen was occupied with the design and photo styling of each project being photographed. During these "shoots," our home and barn became a welter of cameras, lights, reflectors, and extension cords. As they prepared one centerpiece consisting mainly of vegetables, Valerie observed that such arrangements were commonly seen at engagement parties in France as a wish for abundance for the happy couple, a remark that was featured prominently under the photo in the finished book.

Before their arrival, we had worried about their social life in rural Pennsylvania. Our worries were groundless as a trove of American teenagers found their way to our door. Youth knows no language barriers. Occasionally Sebastian would hand me the phone and ask for a translation, but those times were rare. They were so busy that our previous worries about boredom became a joke. As a finale, on their eve of departure, two of our adult friends with Harley Davidson motorcycles, the ultimate symbol of America, took them for a ride, two hours on an exhilarating trip through the surrounding countryside on the conveyance of their dreams.

The next morning, as the car arrived for the trip to the airport, we had a tearful embrace, the usual kiss on both cheeks, and a farewell wave. Valerie summed it all up as she left, saying "I still don't believe it."

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Benjamin Platt, M.D., specializes in geriatrics in Pottsville, and lives with his wife, Ellen Spector Platt, flower farmer and garden writer, at Meadow Lark Flower and Herb Farm, Orwigsburg, Pa. Previous articles by Dr. Platt have appeared in the *New York Times* and in *Symphony* magazine. He is also the founder and timpanist of the Schuylkill Symphony Orchestra.



Corn At Its Sweetest

by Dorothy Noble

With tassels swaying majestically in the breeze and ears swelling with the promise of memorable munching, nothing exalts the glory of summer better than sweet corn.

And the revolution in new varieties is sweetening our enjoyment of America's special treat. But why should you abandon the old standbys in favor of something called a shrunken 2?

First, the new corns are sweeter. Second, they stay sweeter both on the stalk and in the refrigerator. In addition, they possess superior disease resistance and are less susceptible to wind damage.

But how do you select a modern hybrid from the bewildering array of catalog descriptions, which all sound wonderful? And what methods must you follow to grow your new favorites successfully?

Pick the winning taste

If choosing for taste and appearance, mid- and late-season varieties usually have larger ears and better flavor than their earlier-maturing relatives. Select white, yellow, bicolor according to visual preference — color does not affect eating quality — genes do.

Sweet, sweeter, sweetest

You can, and many do, enjoy young field corn in the milk stage, 'green.' Compared with sweet corn it is tougher and starchier, and not as sweet. Believed to be a natural mutation of field corn, sweet corn contains a sugary gene that sets it apart from dent (field), flint, flour, and popcorn. Modifications of the sugary gene, achieved by traditional breeding methods, have elevated recent hybrid sweet corn sugar levels.

Supersweets

Aptly termed, supersweets contain two to four times the sugar of standard corn. Besides starting out much sweeter, these varieties hold this sweetness; their mutant gene arrests the conversion of sugar to starch. The kernels tend to be somewhat crisp, although the new generations are more tender. This genotype is also called shrunken 2, or sh2, because of the appearance of the dry kernel.

Supersweets require more exacting conditions to grow well. Most important, supersweets must be isolated from any other type of corn.

Because they not only retian quality but also ship well, almost all the fresh corn in our grocery stores during winter and spring are supersweets. Much of the processed corn is this type as well.

One year we aimed a bright light on the patch, the next evening we left a radio blaring among the cornstalks; by the fourth night the raccoons just entertained their friends and dined in style.

Sugary Enhanced

Next on the sweetness scale are the sugary enhanced corns. This group also has realized enormous advances in the past few years. In this genotype, the normal sugary gene has been modified to produce a sweeter than normal corn. Texture of sugary enhanced varieties is creamier, more tender than the supersweets.

The newer types — designated double se, se/se, SE, fully sugary enhanced — combine heightened sugars plus tenderness. This group, termed homozygous, in general, boasts higher eating quality but has less cold soil vigor than the heterozygous type.

In heterozygous sugary enhanced corn, one of four kernels is sugary enhanced, rendering these varieties less sweet.

The conversion of sugars to starch in sugary enhanced varieties is retarded. In addition, moisture loss is less rapid than with standard corn. As a result, their tender, delicious sweetness can hold for several days both on and off the stalk. For eating fresh, most varieties of this type are superlative.

'Normal' Sweet Corn

Standard sweet corns have a 'normal' sugary gene, designated su. These varieties can be hybrid or open pollinated. Normals have the traditional 'corn' flavor, with varying degrees of sweetness. The sugars in these types, however, turn to starch rapidly after harvest, and the flavor loss becomes noticeable in a day or two. Plant vigor and desirability for early planting depend on the variety.

The hybrid members of this class are more uniform than the open pollinated varieties. With hybrids, all the plants tend to reach their prime at about the same time. The different maturity rates in open pollinated corn can spread peak harvest over a week or two.

The open pollinated heirlooms tend toward starchiness but with an interesting old-fashioned 'the way corn used to be' taste. These must be picked and cooked as soon as they are ready.

Expect some variability with older corn varieties.

Planting time

A heavy feeder relative to vegetable crops, corn prefers a rich, loamy soil, with pH between 5.8 and 6.8. The only way to be sure of your soil's pH and fertilizer needs is with a soil test. Don't skip this — if the pH is out of range, nutrient uptake is adversely affected; and the soil test results are certain to indicate the application of fertilizer. It's important for corn to get a good start. The plants won't fully recover if stunted from early nutrient deficiencies.

Seed treatment with a fungicide will deter many diseases as well as significantly improve cold soil emergence.

Most gardeners in Southeast Pennsylvania plant sweet corn about mid-May, when on average, the last frost has passed. Optimum soil temperature and moisture levels, however, are obviously surer routes to success than any 'average' safe date. Prepare the moist, but not soggy, seedbed well to maintain sufficient moisture. The soil must be at least 50°F at planting depth for most standard varieties, and ideally 55-60°F for sugary enhanced types. Wait until the soil has warmed to 60-65°F before planting the supersweets.

Select a spot that stays sunny all day.

For effective wind pollination, plant corn in blocks of at least four rows. Rows should be 30 to 36 inches apart. Place the seed 1 to 1½ inches deep, using the shallower spacing if planting early or if planting a supersweet. Space 8 to 10 inches apart in the row for early varieties, 10 to 12 inches for two-eared or large-eared late varieties.

Closer spacing will yield smaller ears. In fact, the fancy baby corn in salad bars and Oriental stir-fries can be grown by choosing

Sweet corns have shriveled kernels. Compare the bronze 'Mandan Nueta' on top, the pinkish 'Rainbow Inca' selection on the bottom with the flour corns in the center and lower right; the dark red and maroon flint corns in the lower left and upper right; and the green, blue, and red dent corns near the top. The corn on the left with the chinmark, or striping, is a sweet/flour cross. Finally, notice the yellow supersweet on the right is markedly shrunken. This hybrid, 'Hudson,' was supplied by Johnny's Selected Seeds.

photo by Bob Ferguson

Corn At Its Sweetest

How to Get an Early Yield

Corn on the cob for your Fourth of July picnic? It's a bit tricky, but some area growers manage it.

Select an early, cold-soil-tolerant variety. When calculating the day to plant, keep in mind that harvest dates are based on average summer temperatures; because spring temperatures are lower, the time to reach harvest stage will lengthen. Next, use one of several methods to continuously warm the soil. Some Delaware Valley commercial operators plant fungicide-treated seed corn about an inch deep in a 6-to 8-inch-deep trench. Hoops are immediately fashioned along the sides, and clear plastic stretched over the top. This mini-greenhouse speeds early growth. After about 30 days or when the soil warms and theplants are a foot or two tall, the plastic is removed.

Another procedure involves laying clear plastic mulch over the soil and planting through the plastic. Both clear plastic methods raise the soil temperatures the highest, but may not be feasible without an herbicide application. IRT and black plastic mulch also warm soil, particularly if placed over the prepared seedbed about two weeks before planting.

Since corn does not transplant well, the success rate can be low; but I've had about an 85% survival rate under favorable conditions. Avoid any check in growth, container stress, and transplant shock. Transplanting through plastic mulch and using row covers all help you get a jump on the season.

Even though cold conditions adversely affect both seedling vigor and germination, pregermination will help attain an earlier crop. Place the seeds on a dampened cloth (disposable if using treated seeds), roll up, put in a plastic bag, and maintain a temperature of close to 65°. Check after two days. After germination, which could take five to seven days, plant promptly, handling the sprouts carefully.

For a small plot, consider raised beds; these warm two to three weeks earlier in the spring.

Late frosts may not damage corn because the growing tip lies deep within the shoot. Low temperatures, however, retard growth. Monitor weather forecasts and plant at the beginning of a warming trend.

In short, anything you can do to give the seed a good start as well as providing warmth will pay off in earliness. Good luck.

D.N.

a multiple-eared variety, row spacing it at 4 to 6 inch intervals, and harvesting just before the silks appear.

To savor fresh corn throughout the summer, stagger the planting dates at two-week intervals until late June, or plant varieties with different maturity dates. (See box on isolation.) But plant at least, say, four dozen of any kind to minimize the risk of insufficient pollination and the consequent poorly filled ears.

Corn likes heat and moisture. If rainfall doesn't supply about an inch a week, or if rainless periods last more than two weeks, supplement at the rate of 65 gallons per 100 square feet. Water deeply. The critical periods are a few weeks after planting, and during tasseling and silking.

Resistance to lodging — that frustrating blowing over by the wind — has been bred into many modern hybrids. If a root system is weak, however, due to uneven moisture levels, working the soil excessively or cultivating too closely, your beautiful corn stalks could still be downed by a summer storm. Gently lift them up and secure by hilling and firming the ground on both sides. Stalks weakened by corn borers have a greater tendency to bend and break.

Don't remove the tillers on the sides of the plants. And, avoid stressing the plants. Stress can cause problems such as incomplete tip fill.

Pests

A number of corn pests are so devastating and so important to control within a narrow time range that the Pennsylvania Vegetable Growers Association funds a statewide monitoring program.

The corn earworm and the fall armyworm migrate from the South, while the European corn borer overwinters in the stalks. Integrated pest management recommends setting up pheromone and blacklight traps throughout the corn-growing areas. The sex attractant the females produce lures the male moths into the traps. The weekly count dictates suggested spray intervals. The critical time is during silking. Since these pests typically increase during the season, later plantings and late-season varieties usually show more damage.

Contact your county extension office for current pesticide recommendations — some of these insects are becoming resistant, and pesticide labels change constantly.

Fortunately, biocontrols seem promising. An import from China, the tiny parasitic wasp, *Trichogramma,* in research plots has devoured the eggs of the European corn borer. And a *Bacillus thuringiensis* (Bt) strain, which when ingested, kills the pest

continued

For Quality, Isolate

The objective is simply to keep two or more kinds of corn from pollinating each other.

With supersweet varieties, it is essential that they be isolated from any other genotype of corn. If the supersweet cross pollinates with another genotype, *all* the corns will be as tough and starchy as field corn. While not imperative for sugary enhanced corn, isolation improves its quality. And, if experimenting with old-fashioned standard or heirloom corns, isolate to maintain the trueness of the variety.

You can isolate corn two ways: by time or by distance. It is generally recommended that, on the average, silking dates of ten days to two weeks difference are sufficient for time isolation. In this region, a distance of 300 to 700 feet is suggested. The prevailing winds and possible windbreaks can also be taken into account.

Weather is unpredictable, however, and even if the seed catalog lists maturity dates two weeks apart, weather extremes can affect the silking. It's not uncommon for a later variety to catch up with an earlier one.

Suppose you crave different varieties, not just the same one planted at various intervals over the season. You *can* mix varieties *within a genotype* without sacrificing eating quality.

For instance, the tasseling and silking of an early white supersweet may be delayed by unseasonably cool or dry weather. Then the rains come and a hot spell persists, pushing a nearby mid-season yellow supersweet variety to shed pollen earlier than expected. All is not lost. The yellow variety may create yellow kernels in the ears of the white variety (xenia). Thus, the variety will no longer be pure, but supersweet quality will still be present.

Similarly, xenia would occur if the yellow and white varieties were two sugary enhanced or two normal types. The differences in the individual varieties will be muddled, of course, but the inherent characteristics of the genotype, such as sugar level, are not diminished. Just don't let another type pollinate a supersweet; if this happens, none of the corns will be of acceptable quality. And, remember, you may have to consider a neighbor's corn!

In seed companies' purity trials, and for seed production, corn is pollinated by hand. This laborious process involves covering the tassels and emerging ear shoots with bags to exclude unwanted pollen. Then the pollen is collected in the tassel bag and transferred to the silks of the appropriate developing ear. The tassel bag is then attached over this ear to prevent any contamination. D.N.

photos by Bob Ferguson



Sources

Seeds

Harris Seeds
P.O. Box 22960
60 Saginaw Drive
Rochester, NY 14692-2960
(716) 442-0410

Johnny's Selected Seeds
Foss Hill Road
Albion, ME 04910-0731
(207) 437-4301

Stokes Seeds, Inc.
Box 548
Buffalo, NY 14240-0548
(716) 695-6980

Agway, Inc.
(catalog and seeds available at retail stores throughout the Delaware Valley)

Soil Test Kit

Available from your county Cooperative Extension office (in Pennsylvania price is $6 or $6.50 depending on whether you pick it up or have it mailed).



Top: Celebrate the corn revolution with a new variety this 4th of July! **Bottom**: The ravenous fall armyworm here devouring a flour corn doesn't discriminate. Unless controlled, it will enjoy *your* sweet corn.

Corn At Its Sweetest

Simplified Corn Glossary

anthers — the portion of the male flowers in the tassels that bear the pollen.

cross pollination — the pollen from the tassels of one plant pollinates the silks of another plant. In self-pollination, the pollen and silks are of the same plant.

dent corn — commonly known as field corn, used for animal feed, corn oil, and cornstarch. The dent on top of the mature kernel is due to its flour heart and flint sides.

Everlasting Heritage or **E.H.** — a seed company trademark used in the first developed sugary enhanced varieties.

endosperm — the part of the corn kernel that contains the carbohydrates (sugar/starch). The endosperm nourishes the embryo/ developing seedling. Supersweet varieties' weaker seed is attributed to less carbohydrates in their endosperm.

flint corn — corn with hard, translucent starch in the kernels. Most ornamental 'Indian' corns are flint corns.

flour corn — corn with soft, floury, opaque starch in the endosperm. Flour corns are used for cornmeal and hominy.

gene — the unit of inheritance. A characteristic is largely controlled by the gene, interaction with other genes, and the environment.

genotype — a group with the same genetic makeup.

heirloom — open pollinated varieties in which seed has been passed down, usually through generations of families.

heterozygous sugary enhanced — sweet corn hybridized with one parent possessing the sugary enhanced (se) gene, the other with a normal sugary (su) gene.

homozygous sugary enhanced — sweet corn hybridized with both parents possessing the sugary enhanced (se) gene. Consequently, the offspring's gene pair is alike (se se). The nomenclature includes SE, fully se, double se, or se+.

hybrid — the offspring of an intentional cross pollination between two individual plants that differ in one or more genes. This first generation progeny is called first filial, and is labeled F1.

hybrid vigor — the phenomenon in which the progeny (the hybrid offspring) is better than the average of its parents. Superiority can be in growth, size, yield. Crops, such as corn, that normally cross rather than self pollinate typically demonstrate hybrid vigor.

lodging — corn stalks lean or fall over (root lodging) or break (stalk lodging), usually in a wind or rainstorm.

mutation — a variation in the heriditary material of a cell.

normal corn — sweet corn with a normal sugary gene (su). Normals are also known as standard corn, and commonly thought of as 'regular' varieties. They can be hybrid or open pollinated varieties.

pericarp — the thin, translucent surface layer of a corn kernel. This is generally tougher in supersweet varieties.

pollination — the transfer of the pollen grains (the yellow powder) from the anther to the stigma.

popcorn — a type of flint corn, in which the starch explodes when heated.

recessive gene — a gene which does not express itself in the presence of a dominant gene. Supersweet corns must be isolated from other types because the sh2 gene is recessive. Pollination by any other type of corn causes a genetic reversal; i.e., the sweet trait is not expressed, it reverts to the dominant gene of its starchy corn parent.

selection — choosing particular trait(s) by repeatedly propagating the material that exhibits the desired characteristic(s).

stigma — the portion of the pistil in the female flower of corn receptive to the pollen. This is in the shoot, where the ears develop after fertilization.

supersweet — a genotype of sweet corn that carries a mutant gene that gives the corn higher levels of sugar that standard corn. It retains sugar because it lacks the enzyme that converts sugar to starch. Supersweet corn is also called shrunken 2, or sh2.

xenia — the immediate effects of cross pollination, such as an adjacent yellow corn variety that produces yellow kernels in a white variety.

Zea mays — the botanical species to which corn belongs.



larvae but not beneficial insects, has been successful in tests.

Disease checks

Grown with reasonable care in this region, most modern hybrid corn varieties are not likely to have disease problems. Insects spread diseases, however. Flea beetles appear early and unfortunately transmit Stewart's bacterial wilt. Aphids spread maize dwarf mosaic virus. Controlling these pests, along with eliminating weeds, rotating crops, and destroying crop debris help keep diseases in check. Also, if diseases have been observed in your area, plant resistant varieties.

Those rather ugly, gray galls that sometimes appear on ears, leaves, stalks, or even tassels are caused by a fungus called smut. These puff balls mature into blackish powdery spores. In some cultures, these are considered a delicacy. Saute' the immature, spongy 'maize mushroom' in butter or olive oil, add a little garlic and fresh herbs, and maybe white wine or cognac. It does have a pleasant, mushroomy-corn flavor. If not your idea of a gourmet delight, destroy affected parts before they burst open. This *Ustilago maydis* fungus overwinters in the soil.

Pesky critters

Often a friend to gardeners, birds are a real nuisance in the corn patch. During planting, if you've been careless in covering the seeds or dropped any, birds may appropriate your crop before it's out of the ground. If you see large gaps in your nice rows, suspect birds. Replant, and use netting or row covers until the plants become about 6 inches high. When the ears are almost ready, noise seems the best deterrent. Foil pie pans strung to make a racket may do the trick. Also, choose varieties with good tip cover — inadequate tip cover invites insect and bird attack. In some commercial fields, growers resort to shooting off cannons.

The burgeoning deer population could be even worse. Corn remains one of Bambi's favorite foods. Repellents can work on a small scale; in some areas, darts containing birth-control drugs are used to control herd size and ultimately minimize crop damage.

How to tell when your crop has reached its prime? If raccoons lurk around the neighborhood, they'll probably invade the night before. One year we aimed a bright light on the patch, the next evening we left a radio blaring among the cornstalks; by the fourth night the raccoons just entertained their friends and dined in style. An electric fence may be your best hope if raccoons abound in the area.

Sweet Corn Varieties for Southeastern Pennsylvania

Name	Color	Season	Ear Length (inches)	Disease Tolerance*	Comments
Supersweet					
Blizzard	white	late	8½	W,B	excellent tip fill
Sweetie 82	yellow	late	7½-8	R,W,B,S	sweet, tender, few tillers
Upstart	yellow	mid	7½	W	excellent tip fill, free of tillers
Sweet Heart	bicolor	early	8	W	uniform, cold soil tolerant
Twice as Nice	bicolor	mid	8	na	tight husk, good tip fill, lasting quality
Sugary Enhanced					
(se se)					
Spring Snow	white	early	7	na	excellent husk protection, no tillers
Sugar Snow	white	early	8	R,B,S	excellent tip cover, tight husks
(se)					
Silverado	white	mid	7½-8	W,B	vigorous, good tip cover, cold soil tolerant, excellent eating quality
(se se)					
Bodacious	yellow	mid	8	R,S	excellent tip cover, excellent flavor
Incredible	yellow	mid	8-9	R,W	excellent yield
Sugar Ace	yellow	mid	7½-8	R,W,B	cold soil tolerant, supersweet in parentage, excellent flavor
Tuxedo	yellow	mid	7½-8	R,W,B,S	good tip cover, tight husks, stress and wind tolerant, excellent quality
(se)					
Legend	yellow	mid	7	R,S	good tip protection
Sweet Dawn	yellow	early	7½-8	R,S	good cold soil emergence
(se se)					
Double Gem	bicolor	mid	7½-8	B	cold soil tolerant, nearly tiller-free, sweet and tender
Ivanhoe	bicolor	early	8-9	R,B,S	excellent tip cover, cold soil tolerant, flavorful
Lancelot	bicolor	mid	8-8½	R,W,B,S	excellent vigor, stress tolerant, good tip cover
Native Gem	bicolor	early	8	na	good tip cover
Stars N Stripes	bicolor	early	7½-8	na	sturdy, vigorous, good tip cover
(se)					
Burgundy Delight	bicolor	mid	7-8	na	pretty purple husks, 2 good ears, good tip fill, cold soil tolerant
Showtime	bicolor	mid	8½	R,W,B	excellent for early planting, good tip cover and fill, thick stalks
Normal					
(hybrid)					
Silver Queen	white	late	8½-9	W,B	tall plant, tight husks, good 'corn' flavor
Golden Queen	yellow	late	8	W,B	yellow version of Silver Queen, 'corn' flavor
Seneca Horizon	yellow	early	7½-8	R,W,B	cold soil tolerant
Harmony	bicolor	mid	7-7½	na	vigorous early growth
(open pollinated)					
Double Standard	white/ bicolor	early	7	na	variable (select white kernels for white ears), 'corn' taste, tender
Golden Bantam	yellow	mid	7	na	old-fashioned taste, old variety

*R=common rust, W=Stewart's wilt, B=Northern, anthranose leaf blights, S=common smut, na=not available.
Data adapted from nursery trials at University of Illinois at Urbana-Champaign, Professor Jerald K. Pataky, et al.

Enjoy promptly

Thanks to modern corn breeding breakthroughs, the days are gone when we had to put the pot on to boil before gathering the corn for dinner. Sweet corn, however, still excels when just harvested.

How long corn remains tender and deliciously sweet before turning into tasteless, tough, starchy kernels depends on several factors. First, the amount of sugar inherent in the variety, and second, the rate at which the sugars convert to starch. Although there are some differences among varieties, the genotype largely controls these two factors. Thirdly, this sugar/starch conversion rate accelerates as temperature increases.

If you must hold corn — and remember, the ability to harvest just before eating ranks high on any list of gardening pleasures — keep it cold. Regardless of the type, refrigerate unhusked immediately. When properly cooled, the supersweets reportedly can stay sweet for two weeks or more, the sugary enhanced types can retain quality for close to a week, but the normals hold for only a few days. Significantly, the normals lose sugar six times as fast at 40°F than at 32°F, and 20 times faster at 90°F.

If you are canning or freezing, process right after picking.

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Writer Dorothy Noble is a research co-operator with The Pennsylvania State University.

photo by George Scandone



BEFORE: The owner asked the landscape designer to naturalize the back of this property and to get rid of the swimming pool.

Deconstructing the Pool

by George Hough

A swimming pool and its environs are made over into a rustic meadow pond framed by an ever-changing perennial display.

photo by Dennis Degnan

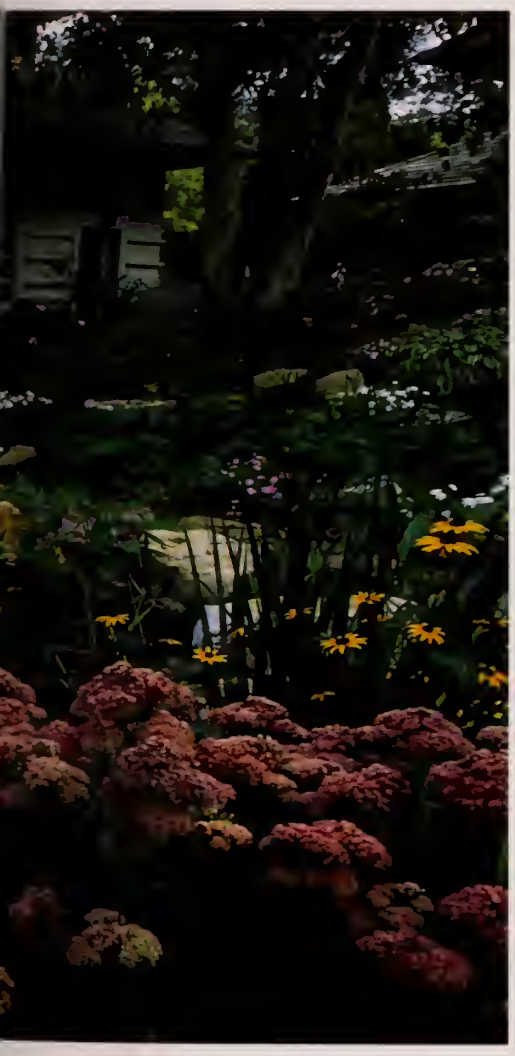


AFTER: Rather than get rid of the swimming pool the designer converted it to a pond, now the focal point of the newly naturalized landscape. The dusty rose *Sedum* 'Autumn Joy' and the last of the *Rudbeckia fulgida* 'Goldsturm' shown here provide color through September.

It was a formidable challenge that the client posed to George Scandone: Turn a portion of an elegantly manicured, rolling lawn in the rear of the contemporary house in Andorra into a wilderness. The principal feature of the space, and quite close to the wooden-sided home, was a free-form gunite swimming pool. "Eliminate that pool," the client dictated, explaining that the home harbored no swimmers.

Scandone, based in Jeffersonville, Pa., originally had been called in to improve the appearance of the estate's driveway and environs. His range of activities and skills include not only building and landscaping, but restoration of fine and decorative arts.

Reflecting on his latest assignment, Scandone thought first in terms of high explosives. What would it take, he wondered, to blow the pool out of the ground and haul away the pieces? An additional problem was that since the pool and patio were built before the house and were very close to it, access with heavy machinery would be difficult and destructive.



As you would expect from a man who works and consults on such a variety of subjects, Scandone, in turn, has his own specialized resources. If occurred to him to call on a pond specialist based in Gap, Pa., and ask if a poured, commercial swimming pool could be converted into a rustic meadow-pond. "It's ideal," he was told. A working team was formed.

It was not Scandone's first pond experience. He had modified an existing pond recently on a Villanova estate. It had been dredged originally for insurance reasons — the need for a nearby source of fire-fighting water. The owners employed Scandone to make that pond more attractive and useful for swimming. His challenge with the Andorra swimming pool, on the other hand, was to convince the client that it could find new life without swimmers. The pool had the advantage of a hard shell and a modifiable plumbing system with a pump, which eased the problem of switching from pool to pond.

Restoring the wild

The area to be naturalized consisted of a large ledge approximately 50 feet by 150 feet as well as the pool itself. Some geometrically severe walls and walks had to be eliminated. Once Scandone and his associates had a clear vision of the end product, the remaining decisions were logistical.

Specific plans were developed in the fall of 1992, and work began March the following year. Tons of fine topsoil, leaf mulch and humus were brought in to alter further the contours of the terrain, reducing the lawn-like flatness. Countless trips to quarries were undertaken to find the right assortment of rocks. Once the tile pool coping had been removed, many of the selected rocks were cantilevered to hang over the edge of the pool softening its original lines.

The swimming pool filtering system with skimmers to eliminate debris had been removed. To feed the rustic pond-to-be, a hole was bored in the concrete pool wall at the shallow end. A screened draw runs across the bottom of the pool, by means of which water is pumped through a buried line up the slope to a newly created upper retaining pond (approximately 5 x 15 feet); the water then returns to the larger pond down a spillway, which leads to a small waterfall that feeds back into the lower pond. The automatic filling system keeps the pond at a constant level with a device that works on the principle of a toilet tank. The system runs all year, preventing the lines from freezing in winter.

As the transformation proceeded, Scandone consulted with plant specialists including F.M. Mooberry, from the Brandywine Conservancy, whom Scandone playfully describes as "a meadowist." The goal was a low-maintenance, all-season wild garden, composed mostly of indigenous plants from local nurseries. Most of the herbaceous perennials came from Valley Farmers, a grower near Phoenixville. Shrubs such as clethra, dogwoods, and sweet bay magnolia were used to establish scale and provide a foundation for the plantings.

The apparently random and natural look of the final plantings was, of course, quite carefully planned. Changing patterns of sun and shade throughout the day and across seasons had to be considered. So did the widely varied rates of growth, which made it necessary to continually thin some plantings, or carry them further down the slope toward the extensive lawn. Some plant locations were determined by when the birch clump came into leaf.

Through the seasons

The plantings surrounding the pond are herbaceous perennials and each has its season.

In spring, *Eranthis, Helleborus niger, Hepatica* and snowdrops *(Galanthus)* are the first to show color close to the ground. In the background is Chinese witch hazel *(Hamamelis mollis).* On the embankment bloom a profusion of yellow-flowered winter jasmine *(Jasminum mesnyi).* Soon to follow are the curled fronds of the fiddlehead ferns in a lovely light green, next to a myriad of hosta varieties. Species of lunaria and hesperis share space on the embankment with many trilliums and an old multiple-trunk birch tree.

Summer is a constant change of color, texture and bloom. Initially, while all the plants were establishing themselves, Scandone filled in with many annuals. But now it is completely on its own and in profuse and constant color during the blooming season, and always interesting throughout the year.

Even in the dead of winter the seed heads of *Sedum* 'Autumn Joy,' *Rudbeckia* 'Goldsturm,' purple coneflower and the pinkish tufts of broom sage attract birds and remind

continued

one that the cycle will soon repeat itself.

Algae, the bane of most swimming pool and many pond owners, has not been a problem in Scandone's Andorra pond. The deep (diving) end of the pool is filled with 3 ft. boulders on a gravel base, and the shallow end (kiddie pool) is lined with sand. Fresh water mollusks, snails and Japanese koi with which the pond was stocked are all algae eaters and keep their surroundings if not pristine — ecologically viable. Koi, a species of carp, are abundant in their familiar "goldfish" color, as well as mottled varieties and white. In return for their services, koi demand little care. They are omniverous and can stand wide extremes of temperature, as long as the water in their pond doesn't freeze to the bottom.

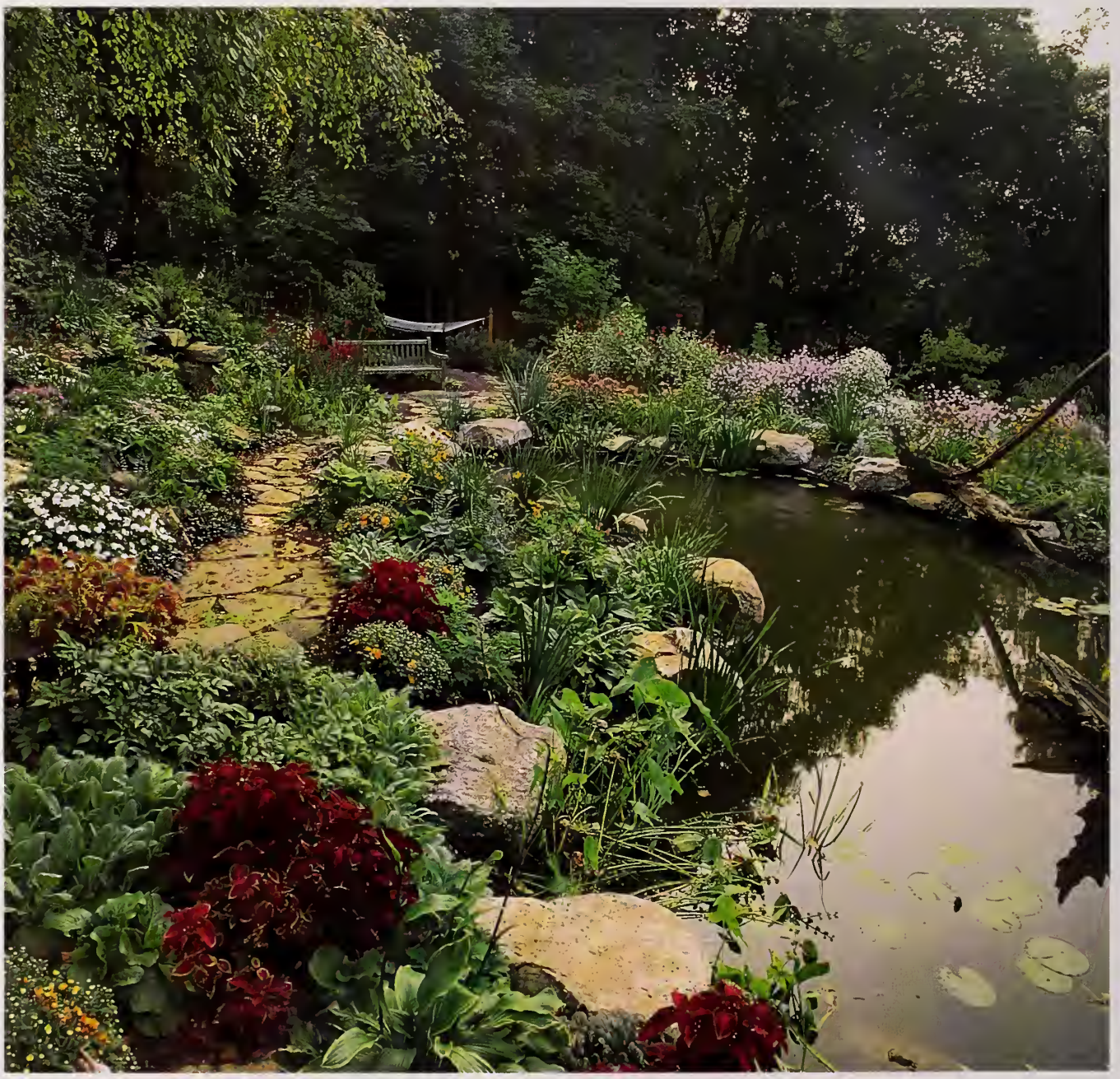
The many frogs add a cheery sound and authenticity to the pond and perimeter. Although a nine-foot deer fence around the entire property keeps out land-based predators, the frogs are vulnerable to attack from the air. They attract circling hawks and an occasional blue heron who can stand in the shallow end of the pond and hunt in a thoroughly familiar setting.

The transformation from pool to pond and surroundings from manicured to wild, accompanied by the soothing sounds of running water, all provide an area of serenity and beauty that has given the owner countless hours of pleasure.

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George Hough, a Haverford-based free-lance writer with extensive experience in medical writing, now frequently explores travel and lifestyle subjects.

photo by Dennis Degnan



All steps shown in the "Before" photo were removed. The designer created in their place an embankment that became a rock garden. Newly installed stepping stones swing around the pond to a bench behind a gentle mini-waterfall. The waterfall's naturally aerated water flows down to the main pond from a second pond at the top of the embankment to the right of the house.

CALADIUMS
for a Tropical Touch

by Kathleen A. Mills

photo by Ira Beckoff



Caladiums are ideal for containers. Here 'Pink Beauty' flourishes in full sun in the vegetable and herb garden at The Pennsylvania Horticultural Society's headquarters.

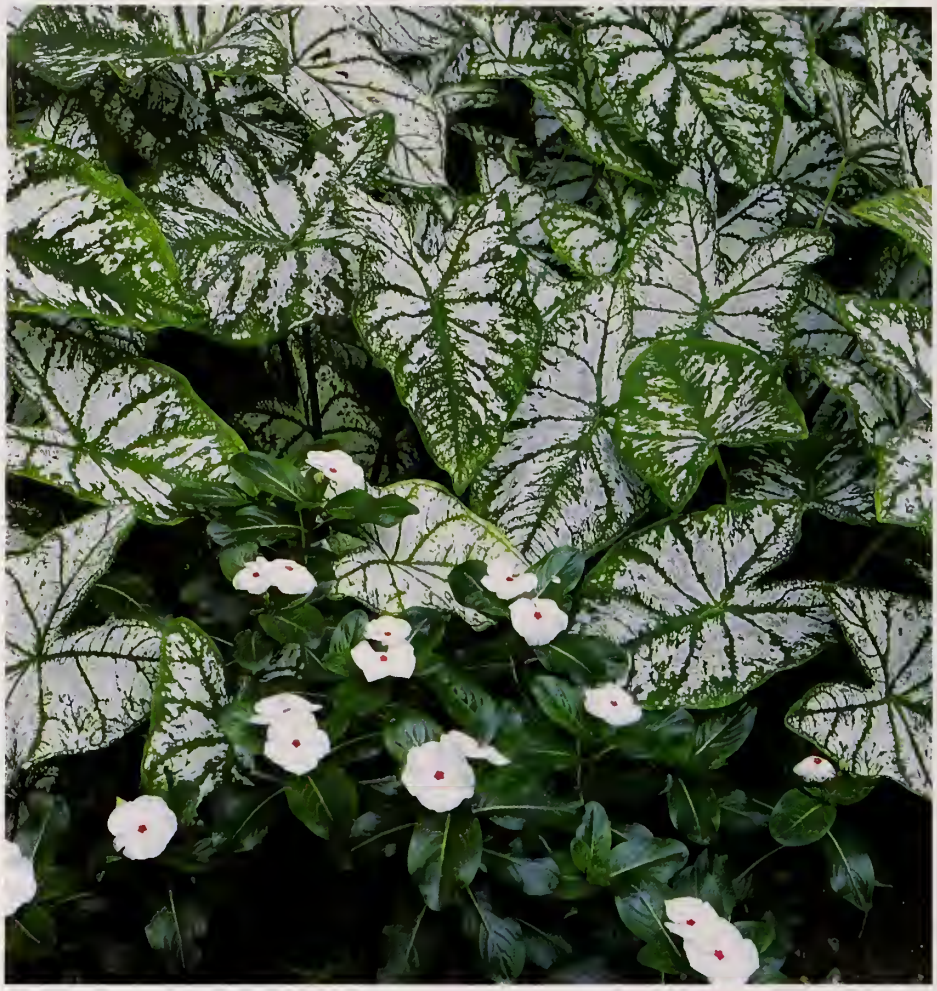
The 18th Century garden as well as the vegetable and herb gardens at The Pennsylvania Horticultural Society's headquarters are tended by 15 dedicated volunteer gardeners. Each gardening season these display gardens are planted with annuals. We enjoy using new plants as well as pushing horticultural rules to their limits. During the summer of 1993 we planted shade-loving *Caladium* x *hortulanum* to accent the base of an urn in our vegetable garden. We chose a dark-leaved variety just to tempt fate. 'Pink Beauty' performed well in the full-sun site and brought kudos from the public as well as the volunteers.

With this success under our belts we decided that more was better and that we'd try planting caladium in the formal garden next season. Located in a protected site, the formal garden has a full-sun exposure. The

continued

CALADIUMS

photo by Ira Beckoff



White leaved *C.* 'Aaron' gently billows over the vinca and the edges of the parterres in the formal garden. Passersby enjoy the lush tropical feel of the garden contrasted against the formality of the garden's structure.

soil is in excellent condition because we add peat yearly. In mid-May of 1994 we planted 200 caladium bulbs of the white-leaved 'Aaron' in four of the garden's parterres. For four weeks we watched rather impatiently for 'Aaron' to make an appearance. By mid-June we saw the first tender shoots begin to push through the soil. It wasn't until July that we were enjoying beautiful caladium, dancing in the breeze, adding a tropical flavor to our center-city garden.

Cultural requirements

Caladiums are tuberous roots that require attentive watering through their growing season. They prefer a rich, loam soil making them great candidates for container growing. Although the books warn of leaf bleaching in the full sun, our white and pink varieties performed well. Adequate water and good soil made that possible. If your soil isn't perfect and you tend not to be a reliable waterer, then your caladium will need a shady spot. The large white-leaved varieties brighten up the shadiest of corners and have a great visual effect when massed.

If you aren't patient enough to wait for July to see your caladiums, start them indoors and set outside after the last frost. Caladiums will wait either in pots or in the ground until the soil temperature approaches 60°F before they make their move. The spathe-like flowers are inconspicuous and should be removed, as they slow leaf growth.

Storage

Caladiums are not hardy in our region, so they need to be dug and stored indoors over the winter. Once temperatures drop to 55°F the leaves will begin to droop. That's your signal to prepare the bulbs for winter storage. Before frost, dig the caladiums from the garden, leaving any soil that adheres to the bulbs. Dry outside in a place away from direct sun for about one week. Once dried, remove the foliage and excess soil from the bulb. Store at 55°-60°F in dry peat.

Caladiums offer a great variety of choices to the gardener who is looking for something a little different and who doesn't mind a little bit of work. *Caladium* x *hortulanum* varieties vary in size from 10 in. to 48 in. and are available in a wide array of color variations.

Here at PHS we're glad we planted the caladiums in the garden. Our patience paid off with a great show from July through late October that delighted visitors and gardeners alike. In the ground or in containers, caladiums are great performers!

Sources

Caladium bulbs are readily available at garden centers. Here are a few mail-order sources:

Dutch Gardens
P.O. Box 200
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Did You Know . . .

When planting caladiums

- plant bulb right side up for large leaf size
- plant bulb upside down to get more, but smaller leaves

For More Information

The following books are available in the PHS Library:

Bulbs, John E. Bryan, Editor, Hearst Garden Guides, Hearst Books, New York, 1992.

Burpee American Gardening Series: Bulbs, Suzanne Frutig Bales, Prentice Hall, New York, 1992.

Classic Bulbs: Hidden Treasures for the Modern Garden, Katherine Whiteside, Villard Books, New York, 1991.

•

Kathleen Mills is a horticulturist for the Pennsylvania Horticultural Society.

Clerodendrum trichotomum
The harlequin plant

by Toni Brinton

Clerodendrum trichotomum, the harlequin plant or glory bower, is not even listed in Dirr's *Manual of Woody Landscape Plants* (4th ed., Stipes Publishing Co., Champaign, IL, 1990). Yet in 1993, two gardeners asked me if I knew where they could obtain a seed or cutting, as it didn't seem to be available at local nurseries. I've never seen it for sale, but I have grown this plant from seed and treasure the two specimens I have kept. It *is* in *Wyman's Gardening Encyclopedia* (Donald Wyman, Macmillan, New York, 1986), which states that its average height is 20 feet and it's hardy to Zone 6.

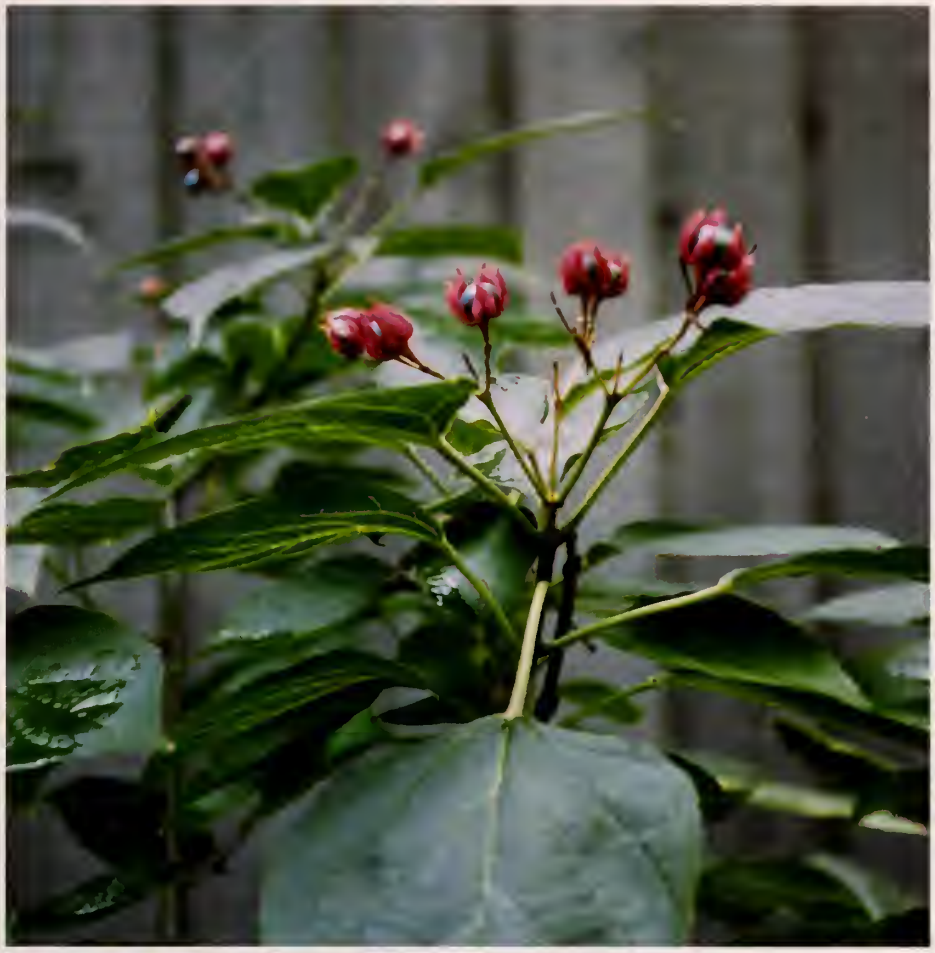
Against a background of stone or wood this small shrub-like tree offers unique fall interest in the garden. The white flowers blooming mid- to late summer are waxy and slightly fragrant, but it is the succeeding colorful formation of fruit that gives this plant its finest hour. It always elicits exclamations for its jewel-like, designer colors of cerise and bright blue that endure for a long display. The berry is twice the size of a pea, brilliant blue and surrounded by a star-shaped cerise calyx.

Although most reference books list it as hardy in the Delaware Valley, glory bower has a reputation of being marginally hardy here. Perhaps that's because most members of the *Clerodendrum* family are strictly tropical. My two plants have proven hardy over the last seven years. Both are set near wooden backdrops, are out of the wind, in an Eastern exposure with four to six hours of sun a day. The stiff awkward growth habit can be modified by judicious pruning and the horizontal branching habit where the berries stand upright along the branches can be encouraged.

Easily propagated from seed or from soft wood or root cuttings, the season's end is both brightened and beautified by the fruit on *Clerodendrum trichotomum.* A plant worthy of a place in any garden.

•

Toni Brinton gardens in Chadds Ford, chairs the John Bartram Association, serves on the Arboretum Committee at Tyler Arboretum, and has worked in various roles for the Philadelphia Flower Show.



photos by Toni Brinton



Mertensia virginica
Virginia bluebells

by Betty Barr Mackey

The first winter after my move from Florida to Pennsylvania seemed endless. In early March I was gratified to see signs of life in the garden. I was especially intrigued by a strange-looking plant that appeared in what had been bare ground next to the terrace. Small, oval, glaucous leaves with purple flower buds appeared, barely above ground level. A few weeks later the leaves had increased to ten times their former size, while the purple-budded stems lengthened to two feet in height, showing off their dangling clusters of what were by this time unmistakably Virginia bluebells.

My surprise continued, however, as I learned that the plants grew lushly in an unpromising site: a densely root-filled, shady spot below an immense oak estimated to be 200 years old. A misguided attempt to transplant some 200 bluebells to other areas revealed their survival tactic: entrenched thick, woody roots that seem as permanent as the flowers and leaves are ephemeral.

Now, after several years of acquaintance and a bit of research, I can pass on a few hints about propagating and caring for Virginia bluebells. The seeds drop in late spring from yellowing plants that have finished blooming. The following spring, countless small plantlets with distinctively glaucous, arrow-shaped seed leaves emerge. If you are not interested in self-sown plants, hoe them out. But it's easy to let them grow, transplant them, or give them to friends or send them to plant sales. Since their roots are not yet deep and woody, they can be scooped up with a trowel and replanted in pots or in other locations.

The seedlings make several more leaves their first season, but do not get very large and most have another two years before they bloom. Like their parents, they turn yellow and vanish by June. But back they come the next year, this time with larger leaves and a thick, fleshy root that is still soft and small. This is the best stage for transplanting them, for they are much easier to see and handle. Again they vanish in late spring. Their return the third spring will probably be accompanied by lovely pinky-blue flowers, or they may wait one more year if there was much transplant shock.



photo by Alan Mackey



photo courtesy of Bowman's Hill

Top: Bell-shaped flowers in soft blue are a refreshing sight in early spring. **Bottom**: Virginia bluebells and mayapples carpet the ground at Bowman's Hill wildflower preserve in Southeastern Pennsylvania, near New Hope.

Virginia bluebells are hardy in Zones 3 to 8. They prefer shade in mildly acidic soil under deciduous trees and are capable of carpeting acres of woodland with hazy blue flowers, as they do at the wildflower preserve at Bowman's Hill, not far from New Hope, Pennsylvania. Although lavender blue shaded with pink is the most common color, there are also pink and white forms. Mature plants do best when spaced one to one-and-a-half feet apart. Top dress the bed with compost in the fall.

Mertensia virginica has an awkward phase after bloom when the leaves begin to turn yellow. For the sake of appearance, you can safely remove the leaves soon after they begin to turn; you don't need to wait until the last of the green is gone. Wild areas can be left alone, for the leaves soon vanish but help replenish the soil.

I use bluebells in bouquets, but only after conditioning them. Harvest them in the morning and stand them in deep, cold water for several hours before putting them into a vase.

The spot where bluebells grow will appear bare in the summer, yet you don't want to disturb the soil deeply. I handle my conspicuous site next to the terrace by interplanting ferns there and also slipping in rooted cuttings or small plants of impatiens without much digging.

•

Betty Mackey is coauthor of *Cutting Gardens*, Simon & Schuster, N.Y., 1993.

Letters to the Editor

Vanilla Dates

I just scanned your Nov./Dec. issue and the article on Vanilla, page 28, by L. Wilbur Zimmerman. Unfortunately as an amateur history buff some of the dates didn't jive so I took to my encyclopedia and confirmed the following information.

Cortez lived from 1485 to 1547 so he would have had a hard time meeting with Montezuma in 1719 (unless your spelling is correct and there was another ruler whose name was spelled Moctezuma).

On a similar note Jefferson returned from France as Secretary of State in 1789. He lived from 1743-1826 so once again if he was able to also perform these duties in the 1840s then the author has really found a major breakthrough.

Sorry to be so nitpicking.

I really enjoy your magazine and the work you do. Over the past several years the [PHS] reference library has provided me with needed information to restore a historic millpond in Gladwyne.

Wm. Michael Tomlinson
Gladwyne, Pa.

Wilbur Zimmerman concurs with Tomlinson that the dates in the article were incorrect.

Wilbur Zimmerman adds:

Thomas Jefferson did return from France in 1789, after which, according to the food expert Waverly Root, he introduced vanilla to Philadelphia.

Hernan Cortes's first beachhead on the mainland of Mexico was August 1519 at a place he named Vera Cruz. By November he had his first encounter with Moctezuma [sic] and his court, when the famous ceremonial beverage was served. Cortes did not subdue the Aztecs though until the summer of 1521, after battles as bloody as ever recorded.

The name Moctezuma was used by Bernal Diaz, the veteran Spanish soldier in Cortes's army, in his famous memoirs. Fray Bernardino de Sahagun, the Spaniard who came to Mexico in 1529 used the name Moctezuma for the Aztec emperor, in his remarkable 12 volumes on Mexico. This historical masterpiece has been a seminal source for an enormous amount of scholarly literature since them.

Moctezuma was an apparent phonetic attempt to simplify the spelling of the Nuatl name, Motecuhzoma. The emporer's last name having been Xocytzn it has simply been dropped. Montezuma apparently evolved from early English chroniclers attempting to make the spelling still easier, and has been much copied.

Wilbur Zimmerman
Bryn Mawr, Pa.

The Plant World in Our Daily Language

Follow me down the primrose path and see how much of our daily lives are described in words and phrases from the plant world:

Tree of life, branches of the family, deflowering, rooted in, search for our roots, grass roots, budding sexuality, weed out, cast one's seed, sowing wild oats, mushrooming, as the twig is bent — so grows the tree, clinging vine, gather ye rosebuds while ye may, from a tiny acorn grows the mighty oak, willowy, thorny issue, thorn in my side, a rose by any other name would smell as sweet, peas in a pod, sour grapes, barking up the wrong tree, stemming from, nutty (crazy), bananas, out of your gourd, cool as a cucumber, hill of beans, can't see the forest for the trees, out of the woods, short end of the stick, last straw, fresh as a daisy, to blossom, out on a limb, fruits of one's labor, as ye sow so shall ye reap, twiggy, bean pole, peachy, carrot top, life is a bowl of cherries, petal soft, mixing oranges and apples, peanuts (small change/money), in a nutshell, bed of roses, bamboo curtain, hot potato, common garden variety, primrose path, it's a jungle out there, pansy, sappy, rolling stone gathers no moss, peach fuzz, shrinking violet, corny, nettled, will 'o the wisp, sage, knock on wood, spruce up, seedy, wall flower, straw boss, hayseed, beat the bushes.

And as the shadow knows — the weed of crime bears bitter fruit!

Betty C. Lewis
Malvern, Pa.

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Caladiums for a tropical touch.
See page 29.
photo by Ira Beckoff

18 27

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Upper Bank, a romantic landscape in Media, created by Fairman Furness.
See page 3.



8.



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Front Cover: See caption on page 3.

Watercolor by Fairman Furness;
photographed by Rick Darke

Grow with us.

in this issue

3. The Garden Artistry of Upper Bank
Rich Darke

8. A Rich Harvest of Eggplants and Peppers
Stephen Clarke

13. Landscape Design Software: A New Tool for the Home Garden Designer
Peter M. Daly

17. Design for Deer Resistance: Combining Flora with Fauna
Jeffrey R. Chorba

21. Divine Inspiration: Flowers Lift the Spirit at Worship
Olivia Lehman

25. How to Grow Three Harder-than-Average Plants for the Philadelphia Flower Show
Ray Rogers

29. The Mask — "A Devilish Impression" A Pressed Plant Material Winner at the 1994 Philadelphia Flower Show
Rosemarie P. Vassalluzzo

31. Plant Societies' Special Meetings and Sales 1995
Carol Lukens

34. Classified Advertisements

CORRECTION: APOLOGIES TO SCHUYLKILL COUNTY!

In the January '95 issue of *Green Scene*, I appended a subtitle to La Grande Histoire, a story by Ben Platt, locating Meadowlark Farm of Orwigsburg in Bucks County. Wrong. The Orwigsburg farm is in Schuylkill County; that's where the two adventurous French students Ben wrote about spent a summer. Ben was kind enough to write me that he and the people of Orwigsburg took the error with equanimity. I did, however, receive two incredulous phone calls questioning my geography I.Q. Know that I apologize, am sufficiently humbled and hope to get a tune-up in the geography lobe of my brain before *Green Scene* goes to press again.

Jean Byrne, Editor

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The Garden Artistry of Upper Bank

by Rick Darke

Through the dedication and talents of the Thompson family, a unique tradition of rare plants and garden artistry continues at this little-known garden, a gem in Media, Pennsylvania.



photo by Rick Darke

Fairman Furness kept meticulous records of the development of his gardens at Upper Bank. His notebooks were illustrated with his own exquisite watercolors. The watercolor on the front cover, titled "The Spanish Steps in Snow, December 29th, 1947," shows the stepped terraces eight years after their construction in 1939. Furness's use of this name for the steps was a reference to Rome's famous Spanish Steps. Furness replaced the columnar Hicks yews *(Taxus* x *media* 'Hicksii') flanking the stairs with the decorative masonry pilasters in 1959 as shown above.

continued

photos by Rick Darke



One of the most striking aspects of the gardens at Upper Bank today is the multitude of mature specimen trees with ornamental bark, such as this Japanese tall stewartia *(Stewartia monadelpha)*, which makes Upper Bank especially beautiful in winter.

He started innumerable seedlings of Kobus magnolia* (Magnolia kobus) *in his nursery and had his crews transplant them in 1942 along Ridley Creek Road as it passes Upper Bank. They've since thrived, and this stretch of road is nothing short of magical when the magnolias are in flower each April.

In an area renowned for its gardens, Upper Bank is one of the most richly planted, romantic landscapes to be found. Situated on 50 rolling acres along picturesque Ridley Creek, Upper Bank was developed as a garden and rare plant nursery by Fairman Furness beginning in 1916. At his death in 1971, Furness left the estate to his nephew Wirt Thompson, Jr. and his wife Sara.

Wirt Thompson recalls first visiting the property at age five in 1916 in a brake cart pulled by a white mare, driven by his uncle "Fair." At that time there was no bridge to the estate and the cart had to ford Ridley Creek. Furness had just purchased the 50 acres, which included a dilapidated stone house built in 1764 as part of Upper Bank Mills.

Fairman Furness was the great-nephew of noted Philadelphia architect Frank Furness, whose works include the Pennsylvania Academy of Fine Arts, the University of Pennsylvania Library, the Pennsylvania Railroad's Broad Street Station, and Williamson Free School in Elwyn, Pa. Later in 1916, Fairman replaced the ford with a beautiful stone bridge over Ridley Creek, and engaged his grand-uncle's firm, Furness, Evans & Co., to rehabilitate the stone house and add two flanking stone wings.

Furness was a friend of Pierre du Pont, and was a frequent visitor to the then-developing gardens at Longwood. Perhaps partly from this exposure, his interest in plants and garden-making increased through the 1920s, and by the 1930s he had set up Upper Bank Nurseries, operating on the estate from a stone office of his design, complete with beamed ceilings and fireplaces. He constructed a walled garden room off the creek side of the house and began a number of herbaceous borders, including an extensive rock garden.

Fairman developed a wide knowledge of plants, and the nursery soon became known as the best in the Philadelphia area for rare and unusual species and hybrids. He had an exceptional eye for beautiful plants, and was way ahead of his time with many of his nursery offerings. Upper Bank Nurseries catalogs from the late 1930s list a number of herbaceous species that have only recently become widely available, such as *Rudbeckia maxima, Tiarella cordifolia,* and *Coreopsis rosea.* Although Furness was intrigued by the beauty of individual plants, he had a superb sense of scale and gave preference to broader design elements rather than collections of unique specimens.

His catalogs included advice "to our customers" pointing out that "one plant of a kind will seldom make an impressive showing in the garden." Furness made his own illustrations for the catalog covers, many of which are quite striking. A gifted artist, Furness was especially adept at watercolor. He kept daily records of the development of his gardens and nursery, and his notebooks are stunningly illustrated with original watercolors of Upper Bank's landscapes (see cover of this issue of *Green Scene).* Furness was also a pioneer in the landscape use of hardy bamboos, acquiring newly introduced species through the USDA (United States Department of Agriculture) and propagating them for sale at his nursery.

During the 1930s, Furness expanded his nursery operations at Upper Bank to include large-scale landscape construction and specimen tree moving. Some of the trees were grown at Upper Bank, others were purchased from existing farms and estates. At the peak of activity, as many as 50 men were employed. Crews from Upper Bank



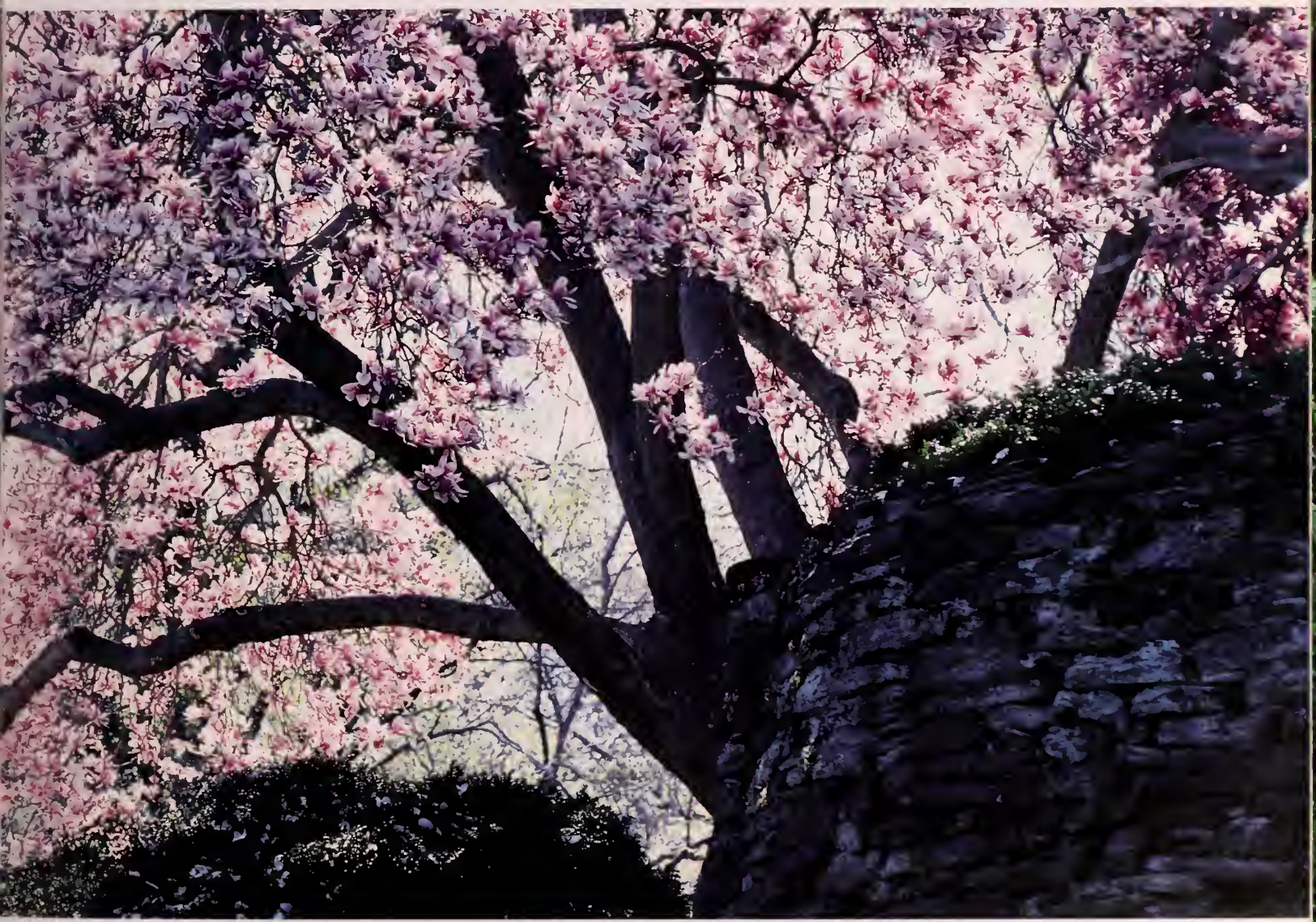
dug and transplanted trees for many of the area's larger estate gardens including Longwood and, in the Wilmington, Delaware area, the Ruly Carpenter estate, the Lammot du Pont estate, and the Sharp estate "Gibraltar." In 1938, Furness produced a design for a large rock garden outcrop to be built on the Copeland estate in Greenville, Delaware, which today is also known as Mt. Cuba Center. Though actual construction and planting of this garden was delayed, it was completed by Upper Bank crews in 1947.

In the late 1930s, landscape architect Fletcher Steele was working on one of his earliest commissions, a large design for Grahame Wood's estate, "Blossom Hill" in Wawa, Pennsylvania. Construction and planting was done by Upper Bank, and a lifelong friendship began between Steele and Furness. When Steele worked on the design of Mabel Choate's garden "Naumkeag" in Stockbridge, Massachusetts, Furness was frequently invited for visits. He made a few priceless watercolors of the gardens at Naumkeag during trips to Stockbridge in 1946.

Early in 1939, Furness began construction of a series of terraces on the slope rising behind Upper Bank house. He then built stone stairs between the terrace levels, creating a dramatic new axis heading up the slope, perpendicular to the house. In an apparent reference to the famous steps in Rome, he called this new construction his "Spanish Steps." Originally, columnar Hicks yews *(Taxus* x *media* 'Hicksii') were planted in pairs flanking the steps. The yews lasted many years; however, by 1959 they had become thin and less attractive and Furness replaced them with ornamental masonry pilasters that still stand today.

Furness continued acquiring and experimenting with unusual woody plants throughout the 1940s and 1950s. He successfully propagated the majority and offered them in his nursery catalogs. He also planted many of them in his own garden. Many specimens from this period are mature today, and contribute greatly to the beauty of Upper Bank. The collection of trees with ornamental bark is outstanding by itself, including tall stewartia *(Stewartia monadelpha),* Japanese stewartia *(Stewartia pseudocamellia),* Chinese quince *(Pseudocydonia sinensis),* trifoliate maple *(Acer triflorum),* lacebark pine *(Pinus bungeana)* and Japanese clethra *(Clethra barbinervis).* These combine with extensive plantings of unusual evergreen hollies to make Upper Bank especially attractive as a winter garden.

Furness was also particularly interested in magnolias, accumulating a diverse collection of American and Asian species. He started innumerable seedlings of Kobus



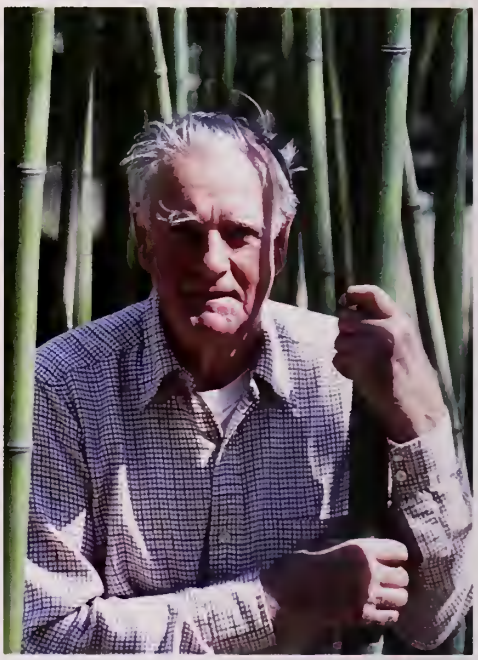
Magnolias of all types have long been a specialty of Upper Bank Nurseries. Today, many magnificent, mature specimens, such as this saucer magnolia *(Magnolia* x *soulangiana)* grace the gardens.

photos by Rick Darke









Above left: This elegant "Blue Gate" at Upper Bank was designed by Fairman Furness and built by William Darlington of West Chester, probably in the 1940s. **Below, left**: One of a pair at Upper Bank, this wrought-iron rhododendron gate was designed and built by Wirt Thompson's daughter Lydia and her husband Gregory Leavitt. The Leavitts operate Upper Bank Forge in Wawa, Pa. Their decorative ironworks have appeared many times in displays at PHS's Philadelphia Flower Show. A new gate with a morning glory motif will be part of the Gale Nurseries' exhibit in the 1995 Show.

Above right: Fairman Furness stands amidst a grove of hardy bamboo *(Phyllostachys flexuosa)* at Upper Bank in 1939. Furness was a pioneer in the garden use of bamboo. He acquired newly introduced species through the USDA (United States Department of Agriculture) and made them available through Upper Bank Nurseries. **Below right**: Wirt Thompson has continued this tradition, and Upper Bank is still an important nursery source of bamboo.

magnolia *(Magnolia kobus)* in his nursery and had his crews transplant them in 1942 along Ridley Creek Road as it passes Upper Bank. They've since thrived, and this stretch of road is nothing short of magical when the magnolias are in flower each April. Always willing to test the limits, Furness even acquired scions of *Magnolia campbelli* in 1941 from San Francisco's Golden Gate Park, which he grafted on understock at Upper Bank. Although this experiment was ultimately unsuccessful, he had better luck with dawn redwoods *(Metasequioa glyptostroboides)*.

Furness's notebooks for these years also record with enthusiasm the flowering of gems such as fothergilla *(Fothergilla major)*, winterhazel *(Corylopsis* spp.) and yellowhorn *(Xanthoceras sorbifolium)*. He also put considerable effort into daylily hybridization beginning in the 1940s and continuing through the 1950s. Some of his breeding stock was obtained through USDA plant introduction programs. Typically, he kept detailed records of his crosses in a notebook beautifully illustrated with his watercolors. A collection of Furness's daylily hybrids was displayed at Longwood in the late 1950s, near the Brick Walk.

One of Furness's most interesting episodes with rare and unusual plants involved Mary G. Henry of Gladwyne, Pennsylvania. Henry was a research associate at the Philadelphia Academy of Natural Sciences and a noted field botanist. In the 1930s she made numerous trips through little-known, undisturbed natural areas in the southeastern states collecting rare and unusual native plants, which she established at her

By 1942 the propagations were up to size and Upper Bank Nurseries put out a separate catalog offering of "Rare Native Shrubs collected by Mary Henry — Available to the public for the first time." For many of the listings, this may be the only time [the plants] have been offered commercially.

garden in Gladwyne. Furness, who was at the time on the board of the Pennsylvania Horticultural Society, obviously impressed Henry since she granted him permission in 1940 to gather cuttings of many of her collections. By 1942 the propagations were up to size and Upper Bank Nurseries put out a separate catalog offering of "Rare Native Shrubs collected by Mary Henry —Available to the public for the first time." For many of the listings, which included Henry's forms of *Magnolia pyramidata, Rhododendron atlanticum,* and *Rhododendron chapmanii,* this may be the only time they have been offered commercially.

Furness continued operating the nursery and landscape services of Upper Bank through the 1960s, although the scale of operations was significantly diminished during his last years. The garden and nursery crew consisted of only two men by 1970, and many of the formal plantings at Upper Bank had become overgrown. Wirt and Sara Thompson inherited Upper Bank in 1971 and made it their home soon after. Both knew Upper Bank well, having visited Wirt's uncle Fairman many times over the years. Sara also remembered Fairman from the days when he'd worked with Fletcher Steele on the Wawa estate of her father, Grahame Wood.

The Thompsons have an evident fondness and a profound appreciation for the beauty and heritage of Upper Bank. Although Wirt, who turns 84 this spring, has kept Upper Bank Nurseries in continuous operation since his uncle's tenure, much of the initial work facing the Thompsons at Upper Bank involved rescuing areas that had been engulfed by invasive introductions such as *Akebia* and Japanese knotweed. Furness had designed many of the outer formal garden areas with a large maintenance crew in mind. These had become unmanageable, and many former nursery rows were filled with overgrown specimens, which were no longer salable. The Thompsons have eliminated these overgrown plantings, often opening up stunning vistas in the process, and they have stabilized the most durable, winning elements of the garden Upper Bank. Many parts, such as the "Spanish Steps" now have the sort of weathered, romantic appeal that comes only from age.

Wirt has continued to seek rare plants, and some of his acquisitions, such as a magnificent Amur *chokecherry (Prunus maackii)* from Arnold Arboretum add significantly to the landscape of Upper Bank. With help from daughters Sara and Lydia, the Thompsons have carried on Fairman's traditions of garden artistry and have enhanced areas of the gardens. Sara, who lives on the property at Upper Bank, is a registered landscape architect whose practice is focused on residential design. She has brought new life to some of the herbaceous borders. Lydia is an artist working in both clay and metal. (See "Clay in the Garden," *Green Scene,* November 1991). Often inspired by natural patterns, some of her tile mosaics and clay sculptures have been integrated with the gardens at Upper Bank.

Lydia and husband Gregory Leavitt also operate Upper Bank Forge in Wawa, Pennsylvania, producing decorative hand-forged garden metalwork. In the 1980s they fashioned a pair of Rhododendron gates to flank an outdoor garden room at Upper Bank. The Leavitts' work has often appeared in major exhibitors' displays at the Philadelphia Flower Show. A polychromed gate featuring delphiniums, which was part of Gale Nurseries' exhibit of 1986, is now permanently installed near the office at Upper Bank. Two 16-ft. tall sunflower sculptures were a focal point of Robert W. Montgomery Landscape Nursery's exhibit of 1989, which was awarded "Best in Show." Gale Nurseries' display in the spring 1995 Philadelphia Flower Show will feature a new Upper Bank Forge gate with a morning-glory design.

Wirt, a Yale graduate not originally schooled in horticulture, has become quite knowledgeable about plants since taking over Upper Bank. With only one full-time assistant, Dean Robinson, he maintains the gardens and continues to produce a catalog of many of the unusual species Upper Bank is noted for. The bamboo collection remains significant, and Upper Bank still ships bare-root specimens around the country. Most other items are available for pickup only.

The garden at Upper Bank today is an inspiration in many ways. A rare, fine balance between diversity and design, it is full of delightful surprises (a wintersweet, *Chimonanthus praecox,* blooming in February) as well as obvious dramas (a myriad of magnolia blossoms ushering in April). Upper Bank is also eloquent testimony to the enduring value of a strong basic plan. The core of Furness's design makes the most of the garden's splendid site and remains alive and pleasing after more than half a century of modification and reduction. And Furness's journals are so much more than factual documentation. They were obviously a revealing joy to produce; a delightful celebration of process and a model to anyone who would make a garden.

Garden Visits to Upper Bank

Longwood-sponsored tour
Wednesday, April 12, 1995
11 am to 4 pm
Tour leader: Rick Darke, curator of Plants at Longwood Gardens

Starts with a brunch at Longwood Gardens and a slide-illustrated preview of Upper Bank. Location: Acer Room.

Fee: $95 (includes brunch and transportation)
P.O. Box 501
Kennett Square, PA 19348-0501
Telephone (610) 388-1000, ext. 516

★ ★ ★

Pennsylvania Horticultural Society Garden Visits Tour
Sunday, April 30, 1995

Upper Bank is one of five gardens from Media to Swarthmore and Newtown Square open for PHS Garden Visits that day. You may visit the gardens in whatever order you wish and at whatever pace you find comfortable. Entrance tags, garden descriptions, and travel directions will be mailed before the event. Participants must provide their own transportation.

Donation: $5 for members; $10 for guests. Send check to Linda Davis at PHS, 325 Walnut Street, Philadelphia, PA 19106.

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Visits at other times
By appointment. Call the Thompsons at (610) 566-0679.

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Rick Darke is curator of Plants at Longwood Gardens. He is a keen gardener, a lecturer and writer as well as an avid photographer. Darke's book *Ornamental Grasses for Your Garden* (Little Brown, N.Y., 1994) features more than 70 of his outstanding photos. His photos have appeared in several other leading garden writers' books as well as in magazines and garden catalogs.

A Rich Harvest of Eggplants and Peppers

by Stephen Clarke

Two brothers, who learned early the joys of a garden, now, through gentle competition, continue their father's legacy —a love of gardening.



Two big winners at the Pennsylvania Horticultural Society's 1994 Harvest Show: The author's brother Jeff (left) won a blue ribbon for his basket of 42 varieties of peppers, and author Stephen Clarke won a blue for his basket containing 51 varieties of eggplants. Another collection of Stephen's eggplants took the Award of Excellence at the 1993 Harvest Show.

photo by Ira Beckoff

When we were children, my brother Jeff and I, along with our parents and seven other brothers and sisters, lived in a big old house on a large piece of land. Our yard was a world of wonders for two young boys. We spent countless hours exploring the creek that ran through it and emptied into a small pond a mile downstream. The huge fields were perfect for chasing butterflies, bees, or whatever else we thought we could catch, and the branches of the ancient beech trees were a quiet refuge from the rest of the world.

Jeff and I also spent quite a bit of time "harvesting" fruit. We started in early summer by racing the birds for almost-ripened cherries and continued by picking wild strawberries and raspberries throughout the summer. The fruit harvest ended with apples in the fall, picked from three old trees growing in the backyard. September often found me inching along precariously thin branches to reach those perfect apples that only seemed to grow at the very top of the tree. The climb was always worth the effort, however, because the apples were delicious and produced the best applesauce I have ever tasted.

The hub of activity in our yard, however, was always Dad's vegetable garden. It was huge, and in it he grew everything from asparagus to zucchini. There were 11 mouths to feed in our house, but he always had more than enough to give away. It wasn't until years later that I realized that the greatest part of my Dad's gardening pleasure came from growing and sharing, not eating. We were all expected to help with the gardening chores, so that by the time I was twelve years old the cycle of composting, soil improvement, planting, growing, and harvesting were permanently imprinted on my mind.

A 4.3 lb. tomato

Our enthusiasm for gardening went dormant during our teenage years and beyond, ready to grow as soon as we had our own yards. Jeff had his first, and immediately started a garden, while I settled for a 2 ft. by 10 ft. strip of ground along the edge of my apartment's parking lot. One August day Jeff telephoned me about a huge tomato he had grown and a contest that he would have won had he entered on time. The contest did not interest me at the time, but the 4.3 lb. tomato that Jeff had grown fascinated me. The next year he again produced a tomato of over 4 lbs., which he entered in the New Jersey Championship Tomato Weigh-In. Jeff won his county weigh-in and took fourth place in the finals. The following spring, I decided I'd try to grow tomatoes on my small strip of ground. I planted out four beefsteak tomato plants and that August both Jeff and I made the Tomato Weigh-In finals.

In September of that year, I attended an event and met a man who would change the way that I approach gardening. The event was the Pennsylvania Horticultural Society's Harvest Show and the man I met there, Craig LeHoullier, introduced me to Seed Savers Exchange. Since I was now into competitive tomato growing, I was on the lookout for seed sources for huge tomatoes. Craig's educational exhibit on "heirloom" tomatoes caught my eye. He not only generously shared some seeds with me, but, more important, he gave me the address of his source. Seed Savers Exchange is a non-profit organization that facilitates the exchange, between its mem-

bers, of commercially unavailable seeds. I left the Harvest Show that day with two goals in mind: to become a member of Seed Savers Exchange and to bring entries to the next year's Harvest Show.

For the next few years, we continued to focus on tomatoes. Each winter I anxiously awaited the arrival of my Seed Saver's Exchange *Yearbook*, scouring its listings of thousands of tomato varieties for the really big ones. Jeff and I tried several different varieties and have reached the Tomato Weigh-In finals many times. Jeff, a seven-time finalist, placed third in 1993. His 4.256 lb. tomato missed winning a $1,000 award by a mere .05 of a pound. My own success has been more modest, even though we share seeds and use nearly identical growing methods. Jeff says, "It just must be something in the soil."

Searching through the Seed Saver's *Yearbook* for tomatoes led me to another discovery: there are an amazing number of varieties of common vegetables that few people are even aware of. I began trying different types of squash, pole beans, eggplants and peppers in addition to the new tomato varieties I was growing. I entered many of these varieties in the Harvest Show and received awards for several of them. One of my blue ribbon winners in 1991 was a striped eggplant called Listada De Gandia. This blue ribbon, the lack of entries in the eggplant classes at the Harvest Show, the small number of Seed Saver's Exchange members offering eggplant seeds, and my desire to try something unusual, all of these led to my current fascination with eggplant and its close relatives.

I began collecting and growing as many varieties as I could find. At the same time, Jeff was busy growing as many pepper varieties as he could get and had room for. In 1993, we both made several entries in the Harvest Show. I had literally put all of my eggs into one basket with a collection of 22 varieties of eggplant. As we circulated around the show, we were both pleased to see that most of our entries had won awards. I was particularly happy to find that my eggplant collection had received the Award of Horticultural Excellence. That, coupled with his growing collection of pepper varieties, inspired Jeff to put together a basket of over 50 varieties of peppers for the 1994 show. I was fortunate enough to correspond with an eggplant fanatic who sent me more than 30 seed samples from her collection of eggplants around the world. By mere chance, Jeff's and my baskets were placed side by side at the Harvest Show. Looking at those two baskets and two blue ribbons, I couldn't help but think about the time and place where this all began for us. My father is gone now, and houses stand where tomatoes and fruit trees once did. There are, however, grafted clones of those apple trees growing in my yard for my children; and my father's love of growing plants still lives in Jeff and me, waiting to be passed on to our daughters.

Growing eggplants and peppers

Given our upbringing, gardening backgrounds, and the similar cultural requirements for eggplants and peppers, it probably isn't surprising that Jeff and I use very similar, if not exactly the same, methods for growing them. The only major differences are in timing, with seed starting, planting out, and pruning.

Soil preparation

For both Jeff and me, one of the keys to successful gardening is proper soil preparation. We both do the bulk of this work in the fall, when the soil is easy to work and there are plenty of leaves available. We also make good use of the leaf mold that is free for the taking at our respective county recycling stations, as well as cow and horse manure. The leaf mold and most of the manure go directly on the garden and is worked in roughly after all plant residue from the previous growing season is cleaned up. The plant residue is shredded and used as mulch away from the vegetable garden to help prevent disease. The remaining manure is mixed with leaves and grass clippings to start our compost piles. In the spring, as soon as the soil is dry enough, we work this compost into the soil and prepare



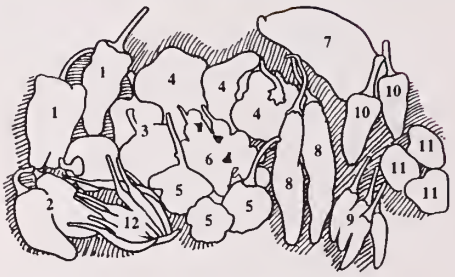
photo by Andrew McCloskey

Steve Clarke and his daughter Kerry harvest the small purple garden huckleberry *(Solanum guineense),* an eggplant relative used as a blueberry substitute.



photo by Ira Beckoff

Some winning peppers



1. Golden Bullnose *(Capsicum annuum);* **2.** Mulato Black Ancho *(C. annuum);* **3.** Little Dipper *(C. annuum);* **4.** Bouquet *(C. annuum);* **5.** Congo *(C. annuum);* **6.** Firecracker *(C. annuum);* **7.** Corno DeToro *(C. annuum);* **8.** Aji Amarillo *(C. baccatum);* **9.** Vietnamese *(C. annuum);* **10.** Sweet Pickle *(C. annuum);* **11.** Mushroom *(C. annuum);* **12.** Striped *(C. annuum).*

our growing beds. After years of this treatment, both Jeff and I have rich, dark growing soil in our gardens and we are convinced that this is why we have had so few disease problems with our vegetables.

Seed starting

Jeff and I differ about when to start our seeds. Jeff likes to plant his peppers by the third week of March, while I usually wait until the second or third week of April. For seed starting, we both us APS seedstarting trays with a good germinating mix as a growing medium. We have found that any finely milled germinating mix is best because it does not form a crust on the surface that might impede the progress of a tiny pepper or eggplant seedling. Seeds are planted about 1/2 in. deep, three or four to a cell. During the week or so it takes for germination, Jeff and I both provide bottom heat to increase our germination rate. Jeff uses a heat mat while I rely on my hot water heater and the top of my refrigerator. While most of our plants are up and going after a week to 10 days, we have found that some of our more exotic varieties may take as long as 20 to 30 days to show themselves.

Once the seedlings are up and growing, they are moved under lights. We both use fluorescent fixtures with plain soft white bulbs, and have been very successful with them. An electric timer keeps the amount of light to plants consistent and will also help to avoid the dark days and bright nights that plants occasionally suffer when we rely on our memories. Keep the lights within a couple of inches from the tops of your plants to keep them from getting too leggy. When the seedlings begin to crowd each other, thin them to one plant per cell. After a month of growth, move the seedlings out of the tray and into larger containers: e.g. styrofoam coffee cups with holes punched in them. They are easy to label and will last for at least two years. After transplanting, I give the plants a shot of diluted liquid fertilizer (Miracle Gro), while Jeff withholds fertilizer until he plants out in the garden. After transplanting and fertilizing, it's simply a matter of keeping the plants warm and watered until it's time to harden them off.

Planting out

Jeff and I differ about when to plant out in the garden. Jeff plants his peppers in the garden during the third week of May, while my eggplants don't go out until the second week of June. Peppers, both sweet and hot, are best eaten when ripe. To give his peppers the long growing season that they need to ripen, Jeff has to get them out by mid-May. Eggplants, on the other hand, tend to be seedy, bitter and generally unfit to eat at maturity. Since they are best eaten at an immature stage, eggplants do not need a long growing season to produce edible fruit. The first year I grew eggplant, I did not get them in the ground until the end of June. These plants produced a bumper crop, which I was still harvesting into November. Since then I have always put out my eggplants "late" and have been rewarded year after year with terrific harvests. It's important to remember that too many cool nights in the spring can really set back these two warm-weather crops. Don't rush to plant them out or you may end up with a disappointing harvest.

Before planting your eggplants or peppers in the garden it's important to introduce them gradually to outdoor conditions. Direct sunlight or strong spring breezes can quickly wilt a young plant that has been growing in a controlled indoor environment. I start this process about a week to 10 days before I plant my eggplants in the garden. I place them outside in a semi-sheltered location, exposing them to direct sunlight for a longer period of time each day. If the plants show any signs of wilting, I immediately move them into the shade to recover. When they can stand a full day of sunlight they are ready to plant into the garden.

Both peppers and eggplants are sun-loving plants. Plant them in the area of the garden that receives the most sunlight to get maximum production. Jeff and I use the same spacing between plants, about 18-24 inches. Since we both have limited garden space for all of the varieties that we grow, we are forced into this tight spacing. With good soil and careful pruning, however, our plants do quite nicely. Some eggplants and many hot pepper varieties are highly decorative plants. We both have been able to save valuable garden space by tucking them in here and there around our yards.

The actual planting goes more smoothly when we first diagram the planting bed on paper labelling the plant locations with the proper variety names. This helps us to avoid varietal mixups and makes locating a particular plant much easier. Two years ago I stuck little wooden markers in the ground like my father did in his garden. Every morning I would find 25 of the markers scattered on the ground. I had a backup diagram that I consulted to replace them, but gave up after a week. The culprit was never discovered, though I suspected the robins who regularly hunt for worms in my garden.

Once we've completed our diagrams it's time to plant. We both set our plants slightly deeper than they were in their

containers. Before I backfill, I mix in a trowel full of my "magic pellets," courtesy of our resident rabbits Ashley, Bandit, and Bun Bun. After backfilling, both Jeff and I give each plant a shot of liquid fertilizer to get it off to a good start. This is the only fertilizer, other than a side dressing of manure later in the season, that either of us uses on our eggplants or peppers.

Growing on

Shortly after planting, we stake our plants. Most of Jeff's pepper plants grow into the 2- to 3-ft. range, with a few even larger. My eggplants are, on average, slightly larger. Some of the African and Asian varieties grow to be 6 ft. tall, with a couple over 7 ft. When the branches are full of fruit, even a small rainstorm can wreak havoc on unsupported eggplants or peppers. For stakes I use 1 in. x 2 in. x 8 ft. furring strips, which I cut in half. Furring strips are inexpensive and reliable (you can buy them at any building supply store). Each one usually lasts about three years, after which I run them through the chipper/shredder and return the woodchips to my garden paths. Jeff is fortunate enough to have a stand of bamboo in his yard, which he cuts to length and uses for stakes.

A blue ribbon, the lack of entries in the eggplant classes at the Harvest Show, the small number of Seed Saver's Exchange members offering eggplant seeds, and my desire to try something unusual led to my current fascination with eggplant and its close relatives.

When the summer begins to really heat up, it's time to head back to the recycling center for more leaf mold to use as mulch. We mulch our growing beds for four reasons:

- Leaf mold keeps soil from splashing on the plants during rainstorms, which cuts down on disease problems.
- It conserves moisture in the soil and inhibits the growth of weeds.
- Once the mulch is in place, we rarely need to weed or water the garden.
- A leaf mold mulch returns some nutrients and lots of organic matter to the soil.

Since mulching simplifies watering and weeding, only a few chores remain before harvest: keep plants tied to the stakes and prune to control their size. I tie my plants with jute twine, keeping it tight enough to support the plant yet loose enough not to cut into the stem as the plant grows. Both Jeff and I prune our plants. While he prunes lightly to control size, I tend to be more heavy-handed. About a week into August, I cut off a couple of the main branches of my more vigorous growing eggplants and prune the rest less severely. I originally did this to allow more sunlight into the middle of my crowded beds, but found that the result extended my harvest into November. After pruning, new shoots grow quickly. Later in the season, when production has slowed on the older branches, the new ones are vigorously producing fruit.

We also watch for pests. Jeff has had no pest problems at all with his peppers, and I have had only a few minor problems with my eggplants. Flea beetles make eggplant leaves look as though they have been hit by a shotgun blast, leaving hundreds of tiny holes in the leaves. I get some of these every

Pick of the Peppers

SWEET	
Corno di Toro (2, 5, 6*)	Comes in both red and yellow; the red is sweeter. 8–10" frying peppers, very productive and delicious.
Aconcagua (2, 5)	Very large elongated bell shape that ripens to red. Thinner flesh than Corno di Toro.
Lemon Belle (1)	Medium-sized bell pepper that turns a bright yellow on its way to its final red coloring.
Little Dipper (1)	1–1.5" miniature bell peppers that ripen to a deep red. Perfect for stuffing or dipping. Very productive.
Northstar (1, 7)	Medium-sized bell pepper that matures earlier than most, to its final red color.
HOT	
Congo (5)	A medium-hot variety. Fruits are 6" long, banana-shaped, and ripen from green to yellow to red.
Hungarian Hot Wax (1, 5, 7)	Golden-yellow Habanero-type pepper on a 4' plant. Very hot!
Rat Tail Cayenne (5)	Prolific plant that bears thin 3–4" green peppers that ripen to red. Great for drying and stringing.
Bouquet (5)	Wrinkled green peppers that resemble a flower blossom. The fruits are carried on a large plant and ripen to a beautiful red.
Golden Bullnose (5)	Very productive plant that bears 3" golden fruits.
Chinese Multi-Color (5)	Large plant with upright 1" conical fruits that ripen from purple to tan to yellow to orange to red. All colors are on the plant together. Very decorative.

*Numbers refer to specific suppliers; see Source list.

year but they don't seem to cause much harm. Colorado potato beetles and their larvae, however, can consume leaves rather quickly. When I notice chewed leaves on my eggplants, I begin to search their undersides for potato beetle larvae. These I pick off by hand and then dispose of. Verticillium wilt, from which I have been spared so far, can be a serious problem with eggplant. Don't plant eggplant where verticillium has been a problem in the past.

Before I backfill, I mix in a trowel full of my "magic pellets," courtesy of our resident rabbits Ashley, Bandit, and Bun Bun.

Harvesting

Peppers, both hot and sweet, can be harvested as soon as they reach full size, but they taste much better if they ripen before picking. Eggplants, on the other hand, should be picked at an immature stage. As soon as it reaches the size that you want, it's ready to harvest. The difference in taste and texture between a young eggplant and a seedy, overripe one is as apparent as the difference between a green and a ripe sweet pepper. If an eggplant's skin turns from shiny to dull, discard it.

Eggplant fruits have a tough stem and many varieties have sharp thorns on the stem and calyx. I use a hand pruner to make it easier on myself and the plant when harvesting eggplant. Pepper plants have brittle branches that can break if you are not careful when picking. Using a hand pruner makes it easier to avoid these broken branches. With over 50 varieties of eggplant to harvest, I obviously have much more eggplant than my family could possibly eat. I do have, however, neighbors and coworkers who absolutely love them.

I now understand why my father enjoyed giving his vegetables away so much. He felt that gardening without sharing, whether it be through seeds, ideas or harvests, is a meaningless activity. It was a lesson that he taught his children many years ago, but one that I have only recently come to truly understand.

A Dozen Grade "A" Eggplants

Lao Purple Tiger (5*)	4' tall, thorny plant with 3" diameter, round light purple fruit with dark purple stripes.
Long White (5)	3' plant with beautiful white fruit, 8-10" long. 1-2" in diameter.
Pinky (2, 5)	Large grooved fruit, lavender with white splotches. Very reliable.
Keeskemetilida (5)	Purple oval fruit on 2.5-3' tall plants. Produces into November. Originally from Russia.
Pink Bride (2, 5, 6)	8-10" lavender fruits with white stripes. Beautiful, very productive and delicious.
Antigua (5)	Large plant with many reddish-purple and white striped fruit. Oval-shaped, averaging 8".
Listada de Gandia (5)	Similar to Antigua, but the plant is smaller and the fruit lighter colored and more rounded.
Pintong Long (4, 5)	Incredibly productive plants with 12-14" long, thin purple fruits growing in clusters of three.
Thai Green (5)	10-12" light green fruits. Very productive and the best-tasting eggplant that I grow.
Ghostbuster (3)	Large, dazzling white, blemish-free fruit on a bushy, productive plant. The best of the whites.
Burpee Hybrid (1)	An excellent, basic, dark purple, oval eggplant. Very large plants and fruit.
Louisiana Green Oval (2, 5)	Similar in size and shape to Burpee Hybrid, but with the color and flavor of Thai Green.

*Numbers refer to specific suppliers; see Source list.

Sources

*1 W. Atlee Burpee Co.
300 Park Ave.
Warminster, PA 18974

2 Gleckler's Seedmen
Metamora, OH 43540

3 Harris Seeds
Box 22960
Rochester, NY 24692-2960

4 Park Seed Co.
Highway 254 North
P.O. Box 31
Greenwood, SC 29647

5 Seed Saver's Exchange
3076 N. Winn Road
Decorah, IO 52101

6 Shepherd's Garden Seeds
30 Irene St.
Torrington, CT 06790

7 Stokes Seeds
Box 548
Buffalo, NY 14240

APS seed-starting trays can be ordered through:

Gardener's Supply Co.
128 Intervale Rd.
Burlington, VT 05401

*See plant lists for information about which suppliers carry specific varieties.

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Stephen Clarke is a sixth grade teacher at Rosemont School, where he actively nurtures his students' interest in gardening. He is an avid vegetable gardener, focusing on heirloom and hard-to-find varieties of eggplants, peppers, and tomatoes. Stephen lives and gardens with his wife Karen and daughters Kerry and Stephanie in Havertown. His brother Jeff lives and gardens in Maple Shade, N.J.

LANDSCAPE DESIGN SOFTWARE:
A New Tool for the Home Garden Designer

by Peter M. Daly

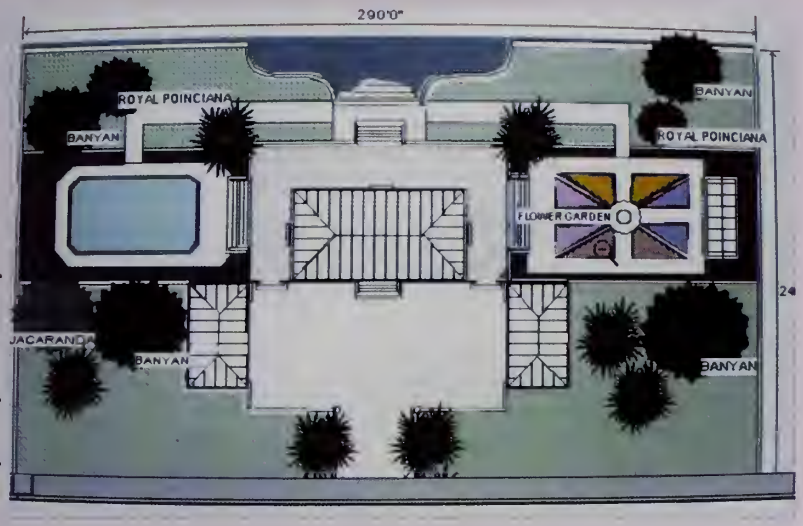


photo by Peter M. Daly

Program: Expert. Although the Expert Landscape (the least expensive program) has fewer features to use to create your plans, the final results are pleasing and sufficient for basic designing needs.

Late winter still allows us time to reflect on our gardens and landscapes: to enhance the current design, peruse garden catalogs and develop ideas for next spring. Most of this preparation appropriately takes place on paper and a well-rendered drawing of the garden and landscape is valuable at this planning stage. If you are like me, however, and find it difficult to draw viable landscape plans and garden sketches, consider a new tool in our gardening repertoire: landscape design software.

If you have access to an IBM-compatible PC, you can design your garden spaces more effectively and efficiently with this electronic tool. (Although Mac-compatible programs may be available, none were reviewed for this article.)

Several landscape design programs that became available around 1990, use a drawing capability that allows you to create realistic landscape plans. By using a mouse in lieu of a pencil you can draw your existing property, plan your landscape design, age your landscape (with some programs), enlarge your plan (with a Zoom feature), and with one program render a three-dimensional view. It's easy to draw straight lines, curves or polygon shapes with just a click of a mouse button. You select most landscape features as symbols (full-grown trees to gazebos) from a menu (often called a library) then instantaneously transfer them to your drawing. Don't despair if you don't find your favorite tree, flower or landscape symbol in a particular program. Some programs allow you to transfer (import) any symbol you can draw from a paintbrush program directly into your drawing.

Our past reluctance to allow computers into our lives is now countered by their ability to perform functions we either dislike or for which we have no aptitude.

Beginning the process

Regardless of which program you use, developing the landscape plan is essentially the same: site analysis, data entry of existing features, then design creation.

The first step in any plan development is site analysis and making a quick line drawing of your "hardscape" to indicate the important existing features of the landscape. Sketching to scale is not necessary; however, measurements of the site and features are an integral part of data collection. Later, using your landscape's measurements you will develop a drawing to scale with the computer. The most important site information to collect is the entire site size and location of hardscape features and garden features: existing walks, garden beds, trees, shrubs, location of home structures (house, deck, patio, etc.), pool, tennis courts, fences, walls and driveways.

Data entry

Once you have your existing features on paper, enter the information into the computer. Most programs first require that you enter an overall size and scale of your property or design plan. The next step is to begin the property layout. In most programs a mouse click selects a function to draw a straight line, curved line, rectangle, circle, square or polygon shape. With the mouse begin drawing these shapes and lines and connect them to create a basic drawing. After drawing rectangles, circles or other enclosed polygon shapes, you may use the "Fill" function to give the selected object color, texture or both, to represent lawn, mulched beds or water features.

The programs all have a hardscape library from which you may select graphic symbols to represent the walls, fences, gazebos, bird baths, etc. Likewise, tree, shrub and flower libraries contain symbols to represent these existing features in your landscape. If you wish to include any text in your plan (label plants or site development notes), click the text function button and begin typing. The text can be moved, changed in size and shape or deleted if you do not like it.

LANDSCAPE DESIGN SOFTWARE

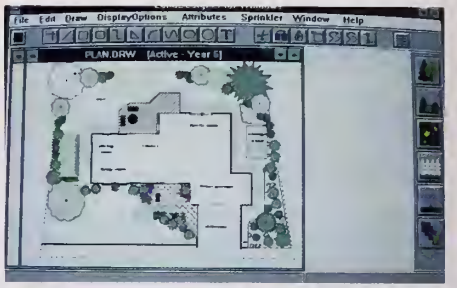
photos by Peter M. Daly



Program: Advantage Point. The Advantage Point program will display your plans from unique three-dimensional angles. The scene can also be displayed in different seasons.



Program: Advantage Point. This type of selection menu allows you to click on a tree or other plant you wish to include in your plan, then "drop" the symbol into your plan. The click-and-drop method used in this program is a bit trickier than that in Expert Landscape or LandDesigner for Windows.



Program: LandDesigner for Windows. The LandDesigner for Windows program provides all the necessary symbols and plant information from the White Flower Farm catalog to develop and design a long-range professional-looking design.

Design creation

As you begin to create new parts of your design plan, the magic of this landscape tool becomes apparent. Add new features to your landscape then move them or delete them. Change colors, shapes and sizes. If you've always wanted a pool but were unsure of space, it's easy to try out different pool sizes and designs and at the same time lay out a poolside garden with a few clicks of a mouse button. Try new color schemes. Move the driveway. Erect a fence. All these functions, easily performed in minutes, can save wasted time and aggravation that could result from poor planning. If you don't like the results, click an edit function and the plan will return to the original design.

Three different products

While designing my landscape and perennial borders, I reviewed three programs that are commercially available at most software retailers: LandDesigner™, Advantage Point™ Landscape and Expert Landscape™ For Windows™. These programs, although similar in many aspects all bear unique features. For example, Advantage Point Landscape alone offers a prefabricated house symbol and yields a near three-dimensional graphic feature. LandDesigner for Windows allows you not only to design a sprinkler system but also to test it electronically. The least expensive program, Expert Landscape, offers the capability to draw either top or side views of your gardens. The landscaping program that is best for your needs depends on your computer system, your skill with computers (though only a basic literacy is necessary for any of these three) and most of all on your horticultural expectations of such a program.

LandDesigner for Windows

LandDesigner for Windows is part of a series developed by Green Thumb Software, Inc. After working with other Windows programs I found the LandDesigner for Windows a pleasure to operate. I was instantly familiar with the common Windows screen environment. The menus, tool buttons (which activate drawing functions or open libraries), and status bar with messages all were similar to those found in most Windows programs. You can open all the libraries for plants, hardscape symbols and line drawing utilities with one click of a tool button. Fear not if any of these features puts you off. LandDesigner contains a complete tutorial that introduces most of the basic functions of the program and prompts you through manipulations of sample drawings. Other programs available from Green Thumb Software include LandDesigner (a DOS version similar in concept to LandDesigner for Windows), a professional landscape program, a CD-ROM version of LandDesigner for Windows and several plant libraries. These additional programs may be purchased separately.

If you are operating on a tight budget LandDesigner allows you to manually update specific plant information. New plants may be added to the program's database (plant library) or you may change the existing information if you differ with the publisher's opinions.

Layer Control

Designing a landscape with LandDesigner enables you to build your plan on a unique layering system. This Layer Control consists of twelve different layers, each analogous to a clear acetate sheet placed over your foundation drawing. The idea is to add new landscape projects with each layer. To illustrate: first imagine developing a base map that includes only your home foundation and other nonliving features. This becomes the Foundation Layer. Add a new layer to the Foundation Layer by clicking on the Layer Control button. On this next layer (called Layer 0) add existing plants, trees and shrubs. Then, in each of the subsequent six layers begin creating your long-range development plans. Take advantage of the budget feature as you develop each layer.

Additional layers are available for a sprinkler plan, and site analysis and development. You do not need to develop every layer. Use only the ones pertinent to your goals. This layer system adds a few extra steps, but it provides a logical step-by-step approach to developing a landscaping master plan for your property.

Plant information

Horticulturists will appreciate the "plant library" included in the LandDesigner for Windows: it includes a White Flower Farm horticultural database. This database yields flowering season, flower color, and leaf texture for more than 800 plants. The cultural information in the database provides hardiness information, sun, water and soil requirements as well as the stabilizing effect of a plant's root system for soil conservation.

A unique "Search" function in this library provides the capability to look up specific plants for use in your plan. Say you want a sun-loving, deciduous shrub that has excellent soil conservation properties (indicated as soil stability). Merely indicating these desired values on the plant search criteria window, then clicking on "Search" will create a scrollable list of plants for your perusal. The utility of the White Flower Farm database outshines all other plant information databases reviewed. The only drawback to the LandDesigner is it does not provide a side-view of your gardens.

Advantage Point Landscape

The Advantage Point software is an excellent choice for the novice gardener who desires to create a simple design. It's user friendly. You can quickly access all

the plants, landscape symbols and even a prefabricated house from a tool bar. Click a button on this tool bar and your screen fills with well-drawn selections of landscaping symbols (trees, shrubs, flowers and hardscape symbols). Pointing to a selection will produce the symbol's name (common names used for identifying plants); clicking again on the bar transfers the symbol to your design drawing. Unfortunately, this program transfers any and all chosen symbols to the same spot in the drawing (the center) so you must move these symbols from the center of the drawing to their desired location to keep them from stacking on top of one another. General and adequate plant cultural information is available on the selected plant through another menu; however, it's not as inclusive as the LandDesigner information.

The 3rd dimension

A fascinating feature of Advantage Point is the design's three-dimensional perspective that works as though you are looking at your properties and gardens from your neighbor's home. With another click of a button you can move your perspective from one corner to another corner of your property or maybe to a bird's eye view. With this feature you can develop your landscape all around your house and get a perfect side view of any corner angle. Additionally, you may view a design in four different seasons. Various plant symbols will change appearance for different seasons and display autumn color, spring color or winter nakedness. This actually introduces another unique feature to electronic design drawing: the fourth dimension of time.

The major drawback of the Advantage Point Landscape, especially to avid horticulturists, is the limited plant symbol selection: by count less than 100 total tree, shrub, vine and groundcover symbols. These symbols are available in the 3-D view and are repeated in a top view database (giving the impression of twice as many plant symbols). The top-view symbols are simply circles. Herbaceous plant symbols, divided into spring bulbs, spring perennials, annuals and fall perennials are available for four color categories with three heights in each category.

Cultural information is available for the major trees, shrubs and vines. The cultural information screens also display a detailed side view of the plant selected. To counter the limited symbol library the program offers a mechanism (a graphic importer) to add symbols to a design by first drawing them in a separate paintbrush program then transferring the image to the design.

Additional drawbacks to this system are that no tutorial is offered, no means of preparing a budget or estimating cost, no sprinkler system and no scale (measurement lines available).

Expert Landscape for Windows

The least costly landscape design program is Expert Landscape for Windows (one is also available for DOS) by Expert Software. Expert Landscape for Windows is fairly easy to use but is desperately lacking in horticultural details. The slight and sluggish plant libraries consist of a measly 21 plants (the same plants repeated in side view and top view libraries). In contrast the hardscape libraries have about 75 different elements including six different vehicle symbols (repeated in top and side views). As featured in the Advantage Point program, you can easily paste any symbol you draw in a paintbrush program in your design (the Windows Paintbrush accessory works well here). Whereas the libraries offer both side view and top view symbols, you can prepare a side view or top view design. Some people might find it cumbersome to open these various libraries because they may require four or five mouse

Computer Requirements for Design Programs

	LandDesigner™ For Windows™	Advantage Point™ Landscape	Expert Landscape™ For Windows™
Computer Brand or Compatible	IBM™*	IBM™*	IBM™*
Processor Type	286 or Better	286 or Better	286 or Better
Graphics Adapter	EGA, VGA or SVGA	VGA	EGA, VGA or SVGA
Minimum Memory	2 MB RAM	2 MB RAM	2 MB RAM
Hard Disk Space Utilized by Program	3 MB	2 MB	2 MB
Monitor	Color or Monochrome	Color	Color
Mouse	Required	Required	Required
Printers Supported	Any Printer Supported By Windows™	Approximately 132 Printers	Any Printer Supported By Windows™
Floppy Disk Size	3.5"	3.5"	3.5"
Approximate Cost	$30.00 to $40.00	$30.00 to $40.00	$10.00
Company's Address	Green Thumb Software 75 Manhattan Drive Suite 100 Boulder, CO 80303	Synergistic Software P.O. Box 186 Issaquah, WA 98027	Expert Software P.O. Box 144506 Coral Gables, FL 33114

*Mac programs were not reviewed for this article.

continued

Trademarks:
LandDesigner is a trademark of Green Thumb Software, Inc.
Windows is a trademark of Microsoft Corp.
Advantage Point is a trademark of Synergistic Software, Inc.
Expert Software and Expert Landscape for Windows are trademarks of Expert Software, Inc.
IBM is a trademark of International Business Machines Corp.

Product Features for Computer Design Programs			
FEATURES:	LandDesigner™ For Windows™	Advantage Point™ Landscape	Expert Landscape™ For Windows™
Tutorial	Yes	No	No
Multiple drawing tools for various shapes (e.g. circle, straight line, curved line, etc.)	Multiple	One tool to draw all shapes	Multiple
Graphics	Good	Very good, 3-dimensional but limited	Good
Plan Size(s)	10 Foot Squared to 170 Acres	150 ft. by 150 ft. maximum	Sm: 25 ft. squared Med: 50 ft. squared Lg.: 100 ft. squared X.L.: 200 ft. squared
Approximate number of plant symbols	200 top view landscape quality plant symbols	100 plants with a top view plus the same 100 plants with a 3-D side view	21 plants with a top view plus the same 21 plants with a side view (Not 3-D)
Approximate number of non-plant (hardscape) symbols	100	75 with a top view and same 75 with a 3-D view	75 with a top view and the same 75 with a side view
Extent of plant specific horticultural information	Cultural information available on over 800 species	Good cultural information but limited to a small database	None
Able to paste artwork from other programs	No	Yes	Yes
Provides a budget feature	Yes	No	Provides a cost tally sheet
Sprinkler System	Yes — Includes a test function	Yes — does not include a test feature	No
Approximate number of fonts	75 modifiable	3 modifiable	50 modifiable
Ability to age the plan	Yes	Yes	No
Metric Conversion	Yes — must select metric during installation	No	Yes
Perspective of plans	Top view only	Top view or 3-dimensional view	Top or side view
Add to or alter existing plant information (i.e. Database)	Yes	No	No

clicks as opposed to a single Tool Bar button click available in the other programs.

Absolutely no cultural plant information is available. On a positive note, viewing the several sample designs included with the program (no tutorial is available) demonstrates nice design sketch potential. The drawing features (lines, rectangles, circles, etc.) equals those in the other programs.

This program offers a unique conversion function to metric measurements (LandDesigner requires a metric configuration during installation), a do-it-yourself budget sheet and four different plan sizes: small (25 ft.), medium (50 ft.), large (100 ft.), and extra large (200 ft.).

Printing the plan

It's always a bonus to see a printed copy of your work. All the programs support various types of printers, both color and black and white, laser and dot-matrix. If you are running Windows and your printer works fine, then your printer will work fine while running Windows Landscape programs (LandDesigner and Expert Landscape). The DOS programs, however, occasionally present problems. (I still have not been able to print out a plan from the Advantage Point program.) Often, in DOS programs your particular printer is not an available selection. Frequently, selecting what is called an emulation printer will do the trick. (This information is in your printer handbook.) If you encounter further difficulties, write to or call either the landscape software company or your printer company to explain. Often, a support department in a computer retail store (CompUSA or Microcenter) can be a savior in these circumstances.

The time has come

Computers so permeate our lives today that we may rebel against their inclusion in our artistic and therapeutic gardening activities. Yet, computers have helped to save time in both household and professional functions. Our past reluctance to allow them into our lives is now countered by their ability to perform functions we either dislike or for which we have no aptitude. Being inept at drawing, I welcome the advent of computers and horticultural programs that allow me to spend more of my time exploring new plants and new ideas with less time devoted to clerical functions. Throw out those pencils, pens, T squares, and French curves and enjoy a fresh approach to planning out next year's gardens.

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Peter M. Daly, a pharmacist by profession, also teaches horticulture in community programs and tends his 125-square-foot perennial border in Upper Darby.

Design for Deer Resistance

Combining Flora with Fauna

by Jeffrey R. Chorba

In our ongoing quest to expand our living range, we have altered some of nature's balances, for example the ratio of forest land to open land. Because of these alterations, wildlife living within the perimeter of the expansion have become "urbanized," seeking food and shelter in the midst of confined city parks, residential developments, and industrial parks. These animals are forced to adapt to people, noise, and pollution. Many animals are struck by cars, chased by dogs, and sometimes starve to death. Even in rural areas the density of the deer population has been rising. Smaller animals such as squirrels, rabbits and chipmunks, for the most part, interact in these environments without much infringement upon people. Deer, however, are not as discreet in their manner of living. They destroy countless garden plants throughout our neighborhoods, causing much grief to home gardeners and commercial businesses.

Through my years of designing and planting landscapes in northeastern Pennsylvania, I have observed which plants tend to be deer resistant through all seasons. By resistant plants I mean those that are, for the most part, not bothered by deer *under most conditions.* In my opinion, there are no deer-proof plants. I have seen plants that have been proven to be toxic to most animals, including deer, eaten by deer during harsh winters. With this in mind, I think we should set goals to design and plant landscapes knowing there will always be some loss of plants.

Factors that make a plant resistible

A plant's deer resistance can be determined by how often and how severely plants are eaten during moderately harsh winters when the deer's food supply decreases. Usually plants soft to the touch and high in water content are the first to succumb to damage. From my experience, deer usually like to eat the tender flower buds of plants first. Roses and rhododendrons, if available, are the first to be eaten. As these food sources diminish, deer resort to less palatable plants: forsythias *(Forsythia* x *intermedia)* and chokeberries *(Aronia arbutifolia).* For the most part plants with thorns or spiny projections turn deer away: Colorado spruce *(Picea pungens),* barberry *(Berberis),* and holly *(Ilex)* are all perfect repellants.

Flavor is another factor that can control deer browsing. Plants with a pungent taste will almost always survive a deer's visit. Marigolds appear to prove this. Boxwoods *(Buxus sempervirens),* although marginally hardy in northeastern Pennsylvania, have been proven deer resistant because of their strong flavor.

A plant's architecture may offer a barrier to feeding, e.g. a crabapple *(Malus)* tree. Although the foliage is enjoyable, if the deer can't reach the leaves because the canopy is too high, the plant will go untouched.

Design techniques may divert deer traffic away from precious plantings. If you are fortunate enough to have substantial changes in grade on your property, you can create sunken or raised plantings by using boulders to retain the earth. Deer do not like to climb even small cliffs if they don't have to. On a large property mass plantings of naturalized shrubs along the perimeter



illustration by Julie Baxendell

Design for Deer Resistance

photos by Jeffrey R. Chorba







Above left: The use of rock walls and sunken plantings work well to redirect deer away from valuable plants. **Above right**: *Miscanthus sinensis* 'Zebrinus' or zebra grass adds an interesting upright accent (shown in the left rear) when used with the billowy pennisetum *(Pennisetum alopecuroides* 'Hameln'). Grasses can provide a low-cost, deer-resistant element in the landscape. **Lower left**: Deer roamed this residential site in a new development as we planted the shrubs. Even with the roaming deer, the *Cotoneaster dammeri* 'Coral Beauty' continues to sprawl over this droughty bank. *Ilex glabra* 'Shamrock' with its shiny green leaves gives a sparkle to this raised planting especially during the winter months.

will help keep deer fed without inviting nibbling on prized plantings closer to the house.

Trees and shrubs

Planting deer-resistant trees and shrubs is the best way to avoid deer problems. From a design standpoint, adhering to a selected few plants can make landscape designing even more challenging. Unfortunately, out of the many meritorious plants on industry lists only a handful are deer resistant. In some ways this limitation can make parts of the design process easier because it focuses your choices dramatically. This streamlining does not make up for the loss in variety, texture, and bloom that can be critical to some clients. With extra planning, the use of structural features can help to fill this void. I find stone to be a good textural and economical element available in many forms, especially in northeastern Pennsylvania.

Most any type of ornamental tree, except

low-branched trees, can be used without concern for deer damage. Low branches are easily reached and can detract from the overall appearance if they are damaged.

In the spring, deer can damage the bark of a young tree by rubbing their antlers up and down the trunk. To prevent them from damaging the tree, use tree wrap. Install it in the fall and leave on until around June. It's a good idea to remove it for the growing season to allow the trunk to expand and to prevent insect or fungus damage.

I rely on some deer-resistant shrubs to make a statement in the landscape through color, texture, and habit. Red Japanese barberry *(Berberis thunbergii* 'Atropurpurea') is a great low-growing plant that can be used in a border or to add a splash of color in a rock garden. Inkberry *(Ilex glabra)* is one of the toughest, most versatile plants I use in the landscape. I prefer to use the cultivar 'Shamrock,' which stays short cropped and keeps its foliar density even with age unlike the naturally occurring species. It is a broadleaf evergreen with rich, dark-green foliage, insect- and disease-free year-round. If you need a handsome, evergreen specimen, a Swiss stone pine *(Pinus cembra)* is the perfect addition to your landscape. Swiss stone pines grow about 8" a year and maintain a tight, pyramidal growth habit. I cannot think of another pine that has such a deep-green color and is as resistant to pests as this plant.

Mountain pieris *(Pieris floribunda)*, sometimes called "mountain andromeda," is an excellent massing plant that has creamy-white flowers in the spring. This broadleaf evergreen, difficult to grow under some conditions, does best in a slightly acid soil in a northwestern exposure. It dislikes alkaline soil and full sun. I find mountain pieris works best in naturalistic plantings that have a good loamy, woodland soil.

Spireas can offer a pleasant touch of color in that hot, dry location of the garden. I like to use Vanhoutte spirea *(Spiraea* x *vanhouttei)*, one of the tallest spireas you can plant, for large masses to screen unwanted views and brighten up a dull corner of the garden. Vanhoutte spirea displays white flowers in early summer for about two weeks. Anthony Waterer spirea *(S. japonica* 'Anthony Waterer') is a fine plant that has lavender-colored flowers that bloom for at least three weeks, it tends to bloom in mid- to late summer non-stop till frost. There are too many other species of spirea with great merit to list here. For the most part, all spireas are deer resistant and reliable plants.

Herbaceous plants

After I have designed the main concept of the landscape with woody ornamentals, I like to incorporate small herbaceous plants that add a delicate richness in the garden: e.g. many species of ferns, both native and exotic, are deer resistant. Most ferns grow best in at least a half shady location in a good loamy soil. Unfortunately ferns lack winter interest, so it's a good idea to plant a woody plant nearby to take over during the winter months.

Ornamental grasses offer a special textural element that perseveres through four seasons. They are also one of the most economical plants I use. *Miscanthus* and *Calamagrostis* are two common and reliable grasses available at many nurseries. In most cases, grasses prefer to grow in sunny locations where the soil is well drained; they actually grow well in poor soil conditions.

Through proper planning, plant selections and management, deer damage to our valuable plants can be lessened. We should learn to tolerate a certain amount of damage to plants in areas of high deer population. Having low-cost plants in strategic areas can satisfy the deers' appetites before they start nosing around prized plants.

Choosing deer-resistant plants is the best way to avoid problems. Experiment with a variety of plants in your area to see if they are bothered; deers' plant selections differ from one area to another. Because of the broad palette of plants we design with, it's always possible to create an interesting landscape with four seasons of interest.

continued

DEER-RESISTANT PLANTS

Large Deciduous Trees:	**Landscape Value:**
Acer rubrum — red maple	Shade, street tree. Red to yellow fall color. Silver bark.
Fagus grandifolia — American beech	Stately specimen tree with golden-yellow fall color, silver bark.
Pyrus calleryana 'Bradford' — Bradford pear	Tough ornamental tree with white flowers and purple fruit.
Quercus alba — white oak	Large specimen tree. Brandy-red fall color. Exfoliating bark.
Quercus palustris — pin oak	Pyramidal specimen tree. Bronze fall color.
Quercus coccinea — scarlet oak	Rounded, upright tree. Red fall color.
Salix elegantissima — weeping willow	Graceful weeping tree. Tolerant of wet areas.
Small Deciduous Trees & Large Shrubs:	
Amelanchier canadensis — shadblow, serviceberry	Delicate understory tree with white flowers and red fruit.
Betula papyrifera — white birch	Specimen tree with white bark and yellow fall color.
Crataegus phaenopyrum — Washington hawthorn	Small ornamental tree with white flowers and orange fruit.
Evergreen Trees:	
Juniperus virginiana — Eastern red cedar	Columnar, upright tree. Good for screenings, borders.
Picea abies — Norway spruce	Graceful tree with pendulous branches. Good for screening.
Picea glauca — white spruce	Upright, pyramidal tree with light-green needles.
Picea omorika — Serbian spruce	Narrow pyramidal tree with dark-green needles.
Picea orientalis — Oriental spruce	Slow-growing, stately tree with dark-green needles.
Picea pungens — Colorado spruce	Upright, pyramidal tree with blue to green needles. Good specimen.
Pinus cembra — Swiss stone pine	Handsome, slow-growing tree. Good for accenting and backgrounds
Pseudotsuga menziesii — Douglas fir	Excellent tree for use as specimen or for groupings.

continued

Design for Deer Resistance

Deer-Resistant Plants continued

Evergreen Shrubs:	
Berberis julianae — Wintergreen barberry	Low-growing shrub with yellow flowers and purple fruit.
Ilex crenata — Japanese holly	Compact-growing shrub with fine texture and rounded habit.
Ilex glabra — Inkberry	Good plant for massing and naturalizing. Forms dark-green background .
Juniperus procumbens 'Nana' — Japanese garden juniper	Great for edging, rock gardens, and groundcover.
Leucothoe axillaris — drooping leucothoe	Shade-loving, massing shrub. Good for woodland settings.
Picea abies 'Nidiformis' — birds nest spruce	Compact, slow-growing shrub with consistent habit.
Picea pungens 'Montgomery'	Dwarf, strikingly blue shrub with compact habit.
Pieris floribunda — mountain andromeda	Low, rounded shrub with white flowers and attractive fruits.
Pieris japonica — Japanese andromeda	Works good as a backdrop for other shrubs. White flowers and shiny green leaves.
Pinus mugo 'Mugo' — mugo pine	Compact, dense-growing shrub. Superb rock garden plant.
Deciduous Shrubs:	
Berberis thunbergii 'Atropurpurea' — Japanese barberry	Compact-growing shrub with reddish foliage and thorny twigs.
Comptonia peregrina — sweet fern	Great plan for waste areas. Can take poor conditions.
Cotoneaster apiculatus — cranberry cotoneaster	All cotoneasters in general are fairly deer resistant and can form a dense groundcover or can be used in a rock garden.
Cotoneaster horizontalis — rockspray cotoneaster	
Cotoneaster dammeri — bearberry cotoneaster	
Euonymus alatus 'Compactus' — burning bush	Compact-growing shrub with brilliant red to orange fall color.
Lindera benzoin — spicebush	Naturalizing plant with yellow flowers and yellow fall color.
Myrica pensylvanica — bayberry	Small shrub for massing in poor areas.
Picea glauca 'Conica' — Alberta spruce	Dwarf, slow-growing shrub with pronounced conical form.
Potentilla fruticosa — bush cinquefoil	Low-growing plant with yellow to orange flowers. Very durable plant.
Spiraea x bumalda 'Anthony Waterer' — Anthony Waterer spirea	Low, rounded shrub with persistent purple flowers.
Spiraea x vanhouttei — Vanhoutte spirea	Large massing shrub with white flowers and deep-red fall color.
Groundcovers, Vines:	
Arctostaphylos uva-ursi — bearberry	Low, groundcover with white flowers and red fruit.
Tagetes — marigold (Annual)	Annual bedding plant with yellow, orange or mahogany flowers.
Festuca ovina glauca — blue fescue	Low-growing ornamental grass with blue color.
Phalaris arundinacea picta — ribbon grass	Variegated ornamental grass that spreads with rhizomes.
Perennials:	
Iris sibirica — Siberian iris	Grasslike perennial/blue-purple. Size is 1-3' with swordlike blades.
Stachys byzantina — lambs ear	Low-growing perennial with silver foliage.
Ornamental Grasses:	
Calamagrostis x acutiflora 'Karl Foerster' — feather reed grass	Upright-growing with plumes of flowers in August.
Miscanthus sinensis — miscanthus	There are many cultivars of *Miscanthus.* All have their own traits.
Pennisetum alopecuroides — fountain grass	Fine-textured grass with narrow blades. Very reliable plant.

Jeffrey Chorba is a landscape designer from Beach Lake, Pennsylvania, and has completed the Landscape Design certification at the Morris Arboretum of the University of Pennsylvania; he is currently attending the Ornamental plant classes at Longwood Gardens. He has worked at designing deer-resistant, residential and commercial landscapes in northeastern Pennsylvania. Jeff also manages a computer service that provides landscape and horticultural information to landscape professionals and the general public.

Divine Inspiration

Flowers lift the spirit at worship

by Olivia Lehman



The St. Thomas' Episcopal Church for Christmas. The altar flowers are individually bagged red poinsettias placed on a stake, anthurium, red and orange carnations and mini carnations, magnolia leaves, pepperberries and holly. The roping above the arrangement was made with two kinds of cedar. The cross was framed with magnolia leaves.

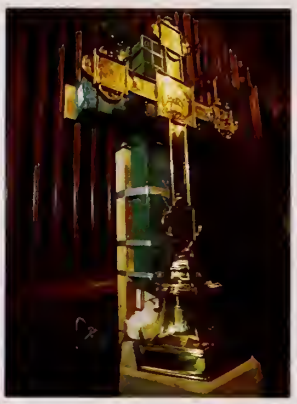
photo by J.C. Gouker

continued

Divine Inspiration

photos by J. C. Gouker





The flower designers emphasized the cross by grouping the magnolia leaves behind and using flowers set in oasis sweeping toward the cross.



On any given Sunday morning one might spot a swiftly moving designer using a turkey baster to water one of the beautiful flower arrangements for which St. Thomas' Episcopal Church of Whitemarsh is famous. That designer with the baster is not working by the clock however; rather, her work is a ministry. All of St. Thomas' floral decoration is done by 15 church members who have made it their mission to create arrangements for this lovely nineteenth century church. At Easter and Christmas, in particular, displays can be quite special.

Committee co-chairs Pam Leighton and Jeannie Craig are the flower enthusiasts running the show — each is a competitive arranger at the Philadelphia Flower Show and an active garden club member. Delighted by the artistic challenges of decorating their church with inspiring arrangements, Leighton and Craig tell me that this form of service is economical as well as creative. By having congregation members rather than professional florists assemble arrangements, churches can save a good deal of money. Two substantial arrangements can be made for $20 each or less, if flowers and greens are purchased from wholesalers, local growers or combined with garden flowers.

In their six years as co-chairs of the St. Thomas' flower committee, Pam Leighton and Jeannie Craig have gained an understanding of what propels this kind of ministry: In addition to spiritual commitment, strong organization and an emphasis on personal expression are essential factors. The assignment schedule for the committee is completed, in conjunction with clergy, early each season to facilitate members' planning. At St. Thomas', the volunteers work in pairs. Because church flower arranging is so different from the arranging done in private homes, the chairpersons provide workshops for parishioners who may not have experience working on such a large scale, yet who would like to join the committee.

Craig tells about a fascinating week-long course she took five years ago at the National Cathedral in Washington, D.C. She spent several days at the Cathedral learning detail after detail about how this art can beautify worship. Her teacher was noted arranger Sandra S. Hynson, author of the book *Flowers to the Glory of God.** Leighton and Craig have gained much from experiences like this one, and they hope to pass on some of their information to other interested congregations. The following is their brief introduction to church flower arranging.

**Flowers to the Glory of God,* Sandra S. Hynson and the Washington National Cathedral Altar Guild, Felfoot Publishers, Keedysville, MD 21756. $19.50 through the publisher. This book is available to members at the PHS Library.

Organization

Although it only takes a few flower lovers to get the momentum going, eventually it's a good idea to establish a formal committee. Arrangers can be recruited through the church bulletin, a ministries fair, or by word of mouth. Once meetings have begun, the group must determine the scope of duties. In addition to Sunday flowers, should the committee be responsible for wedding and funeral flowers, as well as flowers for church holy days such as Christmas, Easter and Pentecost?

Budgeting is a primary concern. How much money can be spent each week for flowers, and what resources can be counted on? Typically, donations are given for memorials, celebrations of anniversaries and births. Money may also be procured through fundraisers. The committee's next step involves decisions about where to obtain flowers and greens. Sources include retail shops, wholesalers, private gardens, and the roadside. Finally, chairpersons might plan a series of workshops for less experienced volunteers. The real fun begins

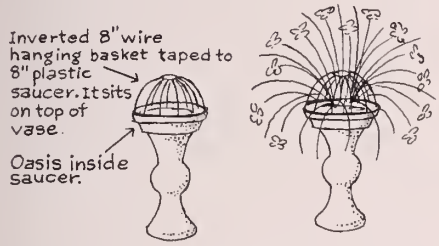
during these sessions. Participants discuss choices of flowers as well as containers, mechanics, supplies, methods of conditioning, and the basic principles of arranging.

Supplies

Every flower committee needs certain basic supplies and a safe place to store them. It may take some searching to find adequate storage space for the essential tools, but be persistent. A beginning supply kit should include: flower clippers, instant and standard oasis, chicken wire, adhesive floral tape, pin holders, floral tubes, bamboo sticks and dowels, watering cans, a yard stick, fishing weights, a large baster (for watering arrangements from the top), and two or three tall plastic buckets for conditioning flowers. Also consider stashing a few plastic drop cloths and inexpensive glass containers such as wine carafes for sending flowers to the sick and to shut-ins after the Sunday morning service.

Mechanics

The large proportion so characteristic of church flower arrangements cannot be created without a firm underlying structure. Oasis, weights, wires, sticks, and dowels



lend solidity to an arrangement's graceful lines.

The oasis must be thoroughly soaked and securely fastened to its container. Be sure that it is positioned well above the top of the container so that flowers can be angled down and over the container's front lip. Fishing weights attached to the back can help counterbalance large mass arrangements. Pin holders and chicken wire also help with anchoring, depending on the container.

When using narrow-necked vases, the oasis is placed in a saucer and then covered with an inverted wire hanging basket. This is known as a bee-hive, and sits on top of the vase. In larger mass arrangements, these can be stacked on top of each other and anchored in place with dowels. The different kinds of oasis available help arrangers create many types of silhouettes: there are racquettes (plastic-covered blocks that take stems directly — they do not have to be placed in another container), designer blocks and igloos. Although standard oasis is used as the backbone for longer-lasting and more complicated arrangements, instant oasis is adequate for most displays. Instant oasis soaks up water more quickly than standard oasis does.



Mary Ann Mackin, one of St. Thomas' 15 volunteer floral designers, creates larger-than-life pedestal arrangement for the entry foyer to greet parishioners during the holidays. Mackin uses bagged poinsettias, red gladiolus and ginger, carnations and holly.

Choosing flowers

In the first chapter of her book *Flowers to the Glory of God,* Sandra Hynson mentions that she receives many letters from parishioners requesting information about how they can organize flower committees for their churches. Aside from mentioning the money-saving benefits of having volunteers create arrangements, Hynson says these letterwriters also refer to members' "boredom with repetitious arrangements of the perfunctory 'five glads/five carnations' and the few clumps of mums surrounded by greens." There is something exciting about being able to use a wide palette of colors and shapes when arranging flowers. So many new possibilities emerge when parishioners choose to decorate their places of worship themselves.

It's important to keep in mind an arrangement's large setting when assembling a church display. Some colors tend to fade out easily, producing voids in an arrangement. Shades of blue and purple share that characteristic; seen even from a short distance they look grey. In contrast, white flowers can be seen from the greatest distances, and must be judiciously placed because they reflect the most light.

Ideally, four or five kinds of flowers should be used in an arrangement. Spike-shaped plants such as snapdragons, stock and gladiolas create the outline of the piece, in contrast to round flowers like mums, daisies and carnations, which add fullness. Profile flowers like lilies, alstromeria and freesia, add a kind of "architectural" interest because of their relative angularity. Greens and flowering branches add a naturalistic dimension to an arrangement, and like spike-shaped flowers, help define the outline. On a hot day displays composed entirely of foliage can be lovely



photo by St. Thomas' Flower Committee

At Easter the font is framed with roses, freesia, nerine, and baby's breath.

and refreshing. Different shades, forms and textures produce a stunning arrangement at no cost.

Some flowers need a bit more attention than others after they have been placed. Gerbera daisies and tulips for example should be wired so they can retain their original positions. Remember that tulips can grow as much as one to two inches overnight, and thus will wander if not wired.

Methods of conditioning

All flowers and greens must be thoroughly conditioned with a product such as Floral Life, so that they can maintain their freshness for as long as possible. Watering pieces carefully from the top after they are completed helps to keep them healthy longer. To condition most flowers: strip leaves below the water level; cut stems on an angle; place the plants in clean buckets filled with water and Floral Life. Before conditioning woody plant material such as branches of lilac, laurel and holly, smash or cut stems. The stems of roses must be cut under water and gerbera daisies dipped in boiling water for several seconds. Both procedures eliminate air pockets that can block water from being taken up through the stems.

Roadside material must be carefully conditioned. Have a bucket of water beside you while cutting, and it's important to cut flowers when in bud or partially opened. Wildflowers that work well on the altar include queen anne's lace, goldenrod (don't let choir members tell you it makes them sneeze — that's ragweed), black-eyed susans, daisies, yarrow, and bittersweet. Cut these plants early in the morning, and condition them in very warm water.

Containers and stands

Containers that can be used in church arranging vary from the classic brass altar vases to baskets, long brass boxes, ceramic or copper urns and compotes, and oasis racquettes. For large mass arrangements on pedestals (often used in the vestibule at Christmas and Easter) Leighton and Craig have used oasis designer blocks as well as bee-hive support structures. Long green plastic boxes are easily covered with decorative moss and can be used in a variety of ways. Although glass is difficult to use, the volunteers at St. Thomas' Church have successfully created silk arrangements in green glass baskets for use during emergencies. They were put to good use during the ice storms of '94.

As an addition to containers, large accessories enable arrangers to assemble elaborate displays when necessary. At St. Thomas' volunteers purchased two inexpensive pedestals and painted them to match the stone of the pulpit. They have been used numerous times in the vestibule as well as the church, and are light and easy to move. The committee also bought a pair of green tiered flower stands that can be used at each end of the altar; they are perfect anchors for groupings of flowers. The carpentry skills of parishioners have produced horizontal stands that go behind the altar, providing space for extra-wide festival arrangements, as well as an upright stand that fits behind the cross. Oasis forms for holding flowers and greens are secured to this.

Basic principles of arranging

Traditionally, the height of flowers never rises above the cross bar of the cross on the altar. Also, it is good to keep in mind that arrangements may be viewed from the back as well as the front, depending on where the altar is placed. Try to make matching arrangements look as similar as possible; if they appear too different from one another their presence is distracting. The committee members at St. Thomas' have found that line, triangular, mass, crescent and oval arrangements are the most successful.

Some churches choose flowers whose colors complement the church calendar. Other elements to be considered when selecting plant colors are a church's carpets, stained glass windows, altar hangings, and the season of the year. Tucking orange into red arrangements at Christmas adds sparkle to the red. Also, remember that white flowers can brighten any arrangement. Leighton and Craig have found that fillers such as statice, feverfew, mini-carnations, wax flower, baby's breath and artemesia can tie a whole arrangement together.

Some final thoughts

The flower arrangers at St. Thomas' find their work rewarding. Committee members value the chance to be involved in a ministry that can express unique talents, while the congregation and clergy delight in seeing beautiful flowers adorn their church every week. It is not uncommon for parishioners from other churches to stop in on the holidays to enjoy the festive arrangements. What a fine tribute to God, nature, and art.

Thanks to Jeannie Craig and Pam Leighton for their assistance in the preparation of this article.

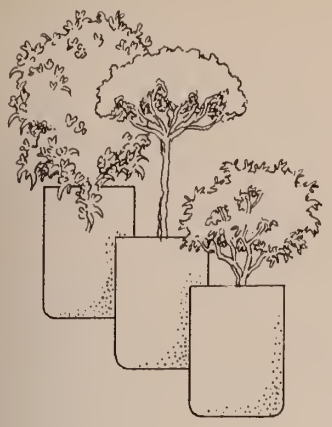
— The Editor

Church Floral Exhibit at 1996 Philadelphia Flower Show

Members of the Altar Guild of the Washington National Cathedral will prepare a featured major exhibit at the 1996 Philadelphia Flower Show to showcase their unique approach to Church Floral decoration.

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Olivia Lehman of Narberth formerly worked for PHS's Philadelphia Green as a Neighborhood Coordinator.



How to Grow Three Harder-than-Average Plants *for the Philadelphia Flower Show*

by Ray Rogers

I like horticultural challenges, and I like to show off my successes. As far as I'm concerned, there's no better outlet for my competitive urges than the Pennsylvania Horticultural Society's Philadelphia Flower Show and Harvest Show. I'll admit that many of the plants I grow to show are relatively easy, although most plants are "easy," provided you know what they need to grow and can provide it. Some of them, however, provide more of a challenge. Here's how I grew three of these challenging blue ribbon winners.

Pelargonium abrotanifolium (wormwood-scented geranium)

When allowed to grow without any pinch or training, *Pelargonium abrotanifolium* soon becomes a rangy, one-sided mass of bare-bottomed, thinly clad stems: not exactly a show plant. If routinely pinched back, however, it forms a dense, uniform little mound, obligingly producing small five-petaled pinkish-magenta blooms in spring and fall. I pinch mine whenever the new growth has produced five or six new leaves; like many *Pelargoniums,* it grows more quickly in the spring and fall, so the pinching is more frequent then.

I've found that as the plant develops a branch system, it's a good idea to prune it looking from above as well as from the sides; this helps keep it rounded and counteracts its natural tendency to grow to one side. It's also strongly phototropic, especially in summer, meaning it leans toward the light if not turned regularly, even though mine is quite close to the plastic covering of the bright greenhouse it's kept in. To counteract this, I turn the plant frequently, usually a couple of times a week.

I've discovered that it adapts well to having its roots confined in a small pot, my older plant has grown in nothing larger than a 3-in. pot for nearly two years with no adverse effects. It receives more-or-less regular applications of liquid 20-20-20 throughout the year, and I've shaken the old potting soil from the rootball a few times and replaced it with fresh mix containing roughly 1/3 peat-based mix, 1/3



photo by Ken Selody II

Not normally a prize winner for plant form, *Pelargonium abrotanifolium* (the wormwood-scented geranium) can be trained into a shapely little mound. Its small pinkish-magenta flowers normally appear in time for Show entry. The adventuresome might want to try growing it as a topiary, as shown by the plant-in-training on the left.





photo by Ken Selody II

An older topiary of *Helichrysum angustifolium* (dwarf curry plant) won't be a perfect sphere on a ramrod-straight stem, but it will look like a miniature tree taken straight out of the Serengeti Plains. Frequent pinching and other restrictive treatment does the trick in a few years. The more spherical plant in the black pot is only a few months old, but it too is already becoming a bit bare at the base.

coarse sand (#3 grade, a very coarse sand also useful as a neat-looking topdressing), and 1/3 sterilized garden soil.

Wormwood-scented geranium can be a little fussy about watering, especially when young: I've killed a few by overwatering them. Just as I do with most of my *Pelargoniums,* I let the surface soil become quite dry before watering, especially during the dead of winter. During more active growth and in the heat of summer, it wants more water, although I've seen mine wilt only once, and that was after a long period of neglect. Also in keeping with its kin, it stays year-round in a bright greenhouse set at 60°F in winter and well ventilated during summer.

Unlike many of its relatives, *Pelargonium abrotanifolium* sends up plentiful root suckers (often with a small root already attached), probably in response to being pinched back. I routinely discard most of these, but in the summer of 1994 I decided to propagate a few of them, to enter both the parent and offspring in the same-named class of the 1995 Flower Show. One of the suckers was particularly straight and tall, so I began training it as a topiary. Force-fed with extra fertilizer and tied gently to a thin stake, it quickly grew to about 6 in., at which height I pinched out the top and hoped for the best. Amazingly, even this very young plant sent up a few suckers, so I figured I was in for a ride. As of January 1995, not only did it continue to send up suckers, but it also responded slowly to repeated pinchings, producing only a sparsely branched head. The foliage tended to be a bit yellow as well; too much water, perhaps? We'll see if wormwood-scented geranium keeps up its winning ways for me (the parent plant has won a blue ribbon in both the 1993 and 1994 Harvest Shows, and a second-place ribbon in the herb classes at the 1994 Flower Show).

Propagation: by root suckers, as mentioned above, or cuttings, which root quickly under mist.

Sources: I picked up my original plant at Atlock Flower Farm in Somerset, New Jersey. Most nurseries that have a reasonably wide selection of herbs, and local herb sales may carry it as well.

Helichrysum angustifolium 'Nanam' (dwarf curry plant)

The full-sized version of curry plant, *H. angustifolium,* is a treat to grow outdoors in the open ground or in containers, both for its beautiful silver-gray foliage and its remarkable scent of curry powder when brushed. It does not lend itself very well to topiary work, however (at least in my experience. I'd like to hear from someone who has had success with it). Dwarf curry, on the other hand, makes a splendid little topiary. I bought my plant from Atlock Flower Farm in the fall of 1992, already trained up and nicely headed, and it made a perfect trio with similar topiaries of *Santolina chamaecyparissus* and *Salvia latifolia* in the Complementary Herbs class of the 1993 Flower Show, winning the blue ribbon and a rosette from the Philadelphia Unit of the Herb Society of America.* But even when its spherical head of foliage was going bare at the base, so I decided to work with it instead of fight it. After two years (and five more blue ribbons from Flower Shows and Harvest Shows), my plant looks like a little savanna tree, with its single trunk branching many times into a dense, rather flat-topped dome.

When pressed for the "secret" to growing this well, I simply admit that I'm mean to it: slowly increase the pot size (my plant at about 2½ years old grows happily in a 5-in. pot); don't give it extra fertilizer beyond the routine twice-monthly 30-10-10; keep it on the dry side, especially in winter; and (my darkest secret) pinch the new growth mercilessly, probably a dozen times a year, before it grows beyond a half-inch long at the most. Its little branches die off throughout the year, and the dead leaves don't fall off, so getting it to look its best for the shows is something of a grooming nightmare; just when I think I've removed all of the dead parts, I find another little brown bit staring right out at me.

Beyond the secrets, it has a few basic requirements. It needs a very bright or sunny spot; if grown in too much shade it will lean strongly to the light, so, as with my wormwood-scented geranium, I turn it regularly. Dwarf curry, particularly when grown in containers, must have excellent drainage. I grow mine in soil similar to the mix described for wormwood-scented geranium, but with a little more #3 sand added. Even though the full-size curry plant can withstand a surprising amount of frost and cold (it can survive mild winters in the Delaware Valley), my dwarf curry has never experienced temperatures much below 55°F. It will be interesting to see how many years it will remain looking good (especially to the judges!).

Propagation: by cuttings under mist.

Sources: Atlock Flower Farm, Well-Sweep Herb Farm, Logee's Greenhouses, local nurseries and sales. Not difficult to find.

*The Philadelphia Unit of HSA, Inc. Award for an outstanding use of herbs.



photo by Ray Rogers

Two years after its first appearance in the Philadelphia Show, *Deutzia gracilis* 'Nikko' had become a blue-ribbon-winning cascade of frothy white flowers and spring-green leaves.

***Deutzia gracilis* 'Nikko'**

In the fall of 1990 I was browsing through the rows of plants at Atlock Flower Farm, and I came across a few plants of *Deutzia gracilis* 'Nikko' that customers had passed by during the season. One plant in particular caught my eye: an attractive mass of exposed roots met at a single "trunk," which then branched out into a shapely crown of stems. I had often seen 'Nikko' in its conventional use as a groundcover, full of flowers in April/May, and thought it might make an interesting plant to force for the 1991 Flower Show. So I bought the plant and repotted it into a 6-in. azalea pot. A month or so later it went into a large leaf pile to protect it for the winter. (Note: 'Nikko' is perfectly hardy in the open ground without any protection in the Delaware Valley, but growing it in a pot means the root ball is more vulnerable to the effects of cold, especially alternate freezing and thawing. Overwintering it in a leaf pile or similar area keeps the soil ball frozen and allows it to thaw slowly, or to freeze again slowly after we experience a mild spell.)

In early February 1991, I took the plant out of the leaf pile, kept it in a cool, dark place for a few days to give it a transitional thawing period, watered it, and then placed it in a warmer, brighter place. To my amazement, the *Deutzia* greened up almost immediately and started to reveal flower buds in little over three weeks after bringing it inside — too early to have it in prime condition for the Flower Show, which was a couple of weeks away. I moved it to a cold room, and it shut down almost completely. Taking it back into a warmer room about five days before the opening of the Show resulted in an eye-catching little plant that took three ribbons on all three entry days. Although it had only a few flowers on the first day, by the last day it was in full bloom.

Buoyed by that success, I grew the plant throughout the 1991 growing season as I would most of my hardy potted plants: it stayed in a cool (about 60°F) greenhouse until late April, and then it spent the growing season outside in nearly full sun, producing several long, graceful shoots dangling over the side of the pot. Early on it began to wilt slightly every day, and it became obvious that it needed a larger pot. I put it into a wider (7-in.) and taller pot to accommodate its increasing height and width. Its new soil mix was roughly half peat-based potting mix and half sterilized soil. It received more or less biweekly dosings of liquid 20-20-20. and a little handful of Osmocote, the slow-release fertilizer that is a boon for growing my hardy Show plants. By July, it had apparently done most of its growing for the season, but I still kept a careful eye on watering. In late November it went back into a leaf pile for its second winter.

Winter ended for my 'Nikko' in mid-February in 1992. Because the initial forcing conditions were much cooler (between 55° and 60°F) than the previous year, it progressed slowly and would not have bloomed if the greenhouse temperature hadn't been turned up to nearly 70°F about 10 days before the Show. It had another fairly successful run in the 1992 Show, but the best (and worst) was yet to come.

It received the usual treatment after the 1992 Show, with another step up to a tall 8-in. pot. By the end of the season, the longest shoots were well over two feet long and nearly obscured the pot. After the usual overwatering, it went into the greenhouse in early February 1993, and it woke up even more slowly than the previous year. Up went the heat again, bringing the plant into full bloom for the last entry day of the 1993 Show, taking a blue ribbon and being considered, for a brief but shining moment, for the Best of Day rosette.

I repeated the usual routine to prepare it for the 1994 Show, but it didn't do very well, barely managing a few blooms for the last entry day. About a month after the Show, 'Nikko' began to wilt mysteriously and was three-quarters dead in a few weeks. I don't know exactly why, but maybe its brief life of intense forcing and grooming burned it out at a relatively early age. Is there a moral to this story? Anyway, three other plants of 'Nikko' were prepared for 1995, so the show will, I hope, go on.

Propagation: very easy from rooted layers, or from semi-ripe cuttings under mist.

Sources: widely available from garden centers, nurseries, and mail-order catalogs.

Sources

Atlock Flower Farm
Weston Canal Rd.
Somerset, NJ 08873
(908) 356-3373
(no catalog)

Well-Sweep Herb Farm
317 Mt. Bethel Rd.
Fort Murray, NJ 07865
(908) 852-5390
Catalog $2.00

Logee's Greenhouses
141 North St.
Danielson, CT 06239
(203) 774-8038
Catalog $3.00

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Ray Rogers made his first few entries in the 1990 Philadelphia Flower Show and has since won Horticultural Sweepstakes once and Sweepstakes Runner-up twice. A lifelong gardener, he is senior editor for Dorling Kindersley Publishing, Inc. in New York City and lives in New Brunswick, New Jersey.

photo by Ira Beckoff



Best of Show in the 1994 Pressed Plant Material classes to Rosemarie Vassalluzzo for her fire-breathing mask in Class 143: Incantation, a class the judges deemed "outstanding." "A devilish impression!" was their opinion of Rosemarie's entry. In 1994 Vassalluzzo won the Grand Sweepstakes Award for the 12th year in a row. The award is made to the exhibitor accumulating the greatest number of points in the artistic and horticultural sections of the competitive classes. She won 27 ribbons in 1994.

THE MASK

"A Devilish Impression"

A Pressed Plant Material Winner at the 1994 Philadelphia Flower Show

by Rosemarie P. Vassalluzzo

People called it the "Winter from Hell." From January through February 1994, and even into parts of March, the ground was covered not with a blanket of snow, but sheets of ice, the likes of which we haven't seen in decades.

From downed electrical lines to power outages, children frolicked in the early snow as schools closed their doors to a record-breaking number of days. Yes, it was considered one of the hardest winters in years. In the horticultural arena, plants froze in greenhouses, bulbs were frozen and retarded, and the brutal winter kill to shrubs and perennials was quite harsh as the spring thaw set it.

Just what effect did this unusual record-breaking winter have on the 1994 Philadelphia Flower Show? While some people thought the number of entries in the Horticourt were down, the colors seemed as intense as ever as visitors looked down the glorious aisles of tulips, narcissus, hyacinths, hanging baskets and flowering houseplants.

One area of this annual floral delight in Philadelphia benefitted greatly from the blizzard conditions. As yet another snow continued to fall, many people found themselves house-bound. Meetings and appointments were cancelled, offices and malls were closed while people scouted around for indoor activities close to home.

I found myself grieving over a few frozen and late-blooming pots of bulbs. But with icy weather came more time than ever to work on my pressed plant entries. Immediately following the Christmas holidays our basement transforms into a horticultural and artistic workshop to prepare entries for the Flower Show. The bulbs are brought in under lights, the niches are set up to experiment for the design classes, flowers are brought out of silica gel and the petals are turned into pigments as the designs for the pressed plant class evolve.

And evolve they did! It seemed only appropriate that the signature entry in this "Winter from Hell" should have been a three-dimensional ceremonial mask, entirely covered with plant material. A devil's mask seemed a fitting entry for the class title "Incantation."

So where does one begin when entering a challenging category such as a three-dimensional ceremonial mask?

Exhibitors could choose between a full or half mask, a cloth or paper mask, a composition mask or even the 'Carnavale'-type mask such as those we saw in Florence and Venice last spring. We neglected to buy a mask in Italy, so my husband Jules scoured area flea markets and antique shops for a suitable mask among other quests. Frankly, I was unenthused and rather dubious when he came home with a hideous brown, beat-up primitive tribal mask with flaring fangs emanating from the upper and lower jaws.



photo courtesy of Rosemarie P. Vassalluzzo

The author created this Faberge Egg by covering an ostrich egg with pressed plant material. It was entered in the 1991 Show and took second place.

After a conference we decided the fangs had to go: they were too hideous and would detract, and they would be too difficult to cover with pressed flowers and plant material. After removing the fangs and filling in the tooth sockets, Jules worked to simplify and refinish the mask's surface. The final steps were several coats of flat eggshell-tone paint. As he handed me the now refinished mask, he said, "Here is your canvas, create your masterpiece."

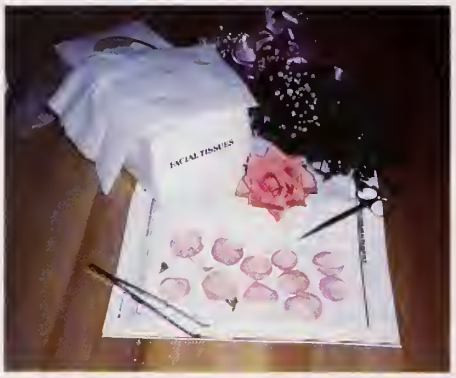
Taking pressed material, I began to apply color and life to the now blank surface. The pressing of the plant material takes place all year long in several flower presses starting with some of the flowers that come home from my horticultural and arrangement entries at the Show as well as leaves of houseplants, even roadside weeds. Nothing is sacred. It is not an uncommon sight to see me scrambling ahead of the lawn mower, combing the lawn for buttercups or even blades of grass to put in the flower press.

As the snow swirled and the blizzard conditions persisted, the personality of the image of my mask developed and seemed to have a life of its own. With each additional snow storm came more opportunity to work on the pressed plant entries. Between watering the bulbs for entries in the Show, lifting dried flowers from the silica gel and planning arrangements for the niches, I invariably returned to the mask and added more color. I must admit "Voodoo Vick" was slowly turning into a near and dear friend.

Jules made a stand of thin plywood for the mask so I did not have to handle it too much. I then began to cover it in sections, starting with the interior of the mouth, which I thought would be the most difficult to reach. This area was covered with dark red, light red and pink rose petals, using white roses for the teeth. Then the area under the brow, in the crease between the cheek and the nose and in the area around

To press flowers

photos courtesy of Rosemarie P. Vassalluzzo



Place rose petals on blotter paper ready for the flower press.



Place in press. The author's husband made this beautiful flower press using hand-hewed walnut wood from a tree over 300 years old, which friends had to take down after a storm.



Remove flowers, petals and foliage from press after three or four weeks, depending on denseness of flowers.

Tips for Prize-Winning Pressed Flower Designs

1. Use only the freshest of plants. Collect flowers any month of the year or any day of the week. For best pressing results, however, pick flowers at mid-day on a dry sunny day when the blooms have had a chance to open fully and are dry from the morning's dew.
2. Flowers suitable for pressing range from those purchased at the florist, garden-grown flowers and foliage and plants collected from the roadside.
3. Annuals, perennials, leaves, ivy, ferns, shrubs, grasses, bulbs, herbs — all make wonderful and appropriate pressing material.
4. Buttercups are an early spring flower and are an easy way for the novice to get started. Pansies, cosmos, marsh marigolds, johnny jump-ups and queen anne's lace are but a few flowers easily accessible to the presser.
5. Divide and conquer. When pressing larger and more dense flowers such as roses or carnations, you will want to perform some simple surgery. Taking flowers apart and pressing individual petals may seem time consuming at first, but greatly increases your design and color possibilities. You can either reassemble the flower when creating your pressed plant design or use petals to create a number of visual effects. In essence, you can paint with flower parts.
6. Basic rules when designing: Your room should be dry. Begin with a sketch. Select pressed material from press. Place pressed flowers on sketched design. Glue in place, Always keep in mind composition, focal point, color, design and texture.
7. Gluing: This is probably one of the most important steps in the process. After you have created your design, carefully pick up each flower, petal and leaf and brush with a dab of glue. Gently replace each blossom onto the design.
8. Matting and Framing: Your framing should enhance your pressed flower arrangement and be an integral part of the overall design. Antique frames are a fine source. New frames are always a safe way to go. You might want to make your own frames, using a miter box and saw. Square, rectangular, oval or round; be sure the sizes of the design and the frame are proportional. Read your schedule and note size requirements.

Sometimes people feel this art form skipped a few generations. Today, however, people are returning to this time-honored pastime with new vigor, enthusiasm and techniques.

Remember, with time and patience comes expertise. The techniques involved in pressing flowers are endless. A pressed plant creation can evoke the memory of a special person; a significant day, event or accomplishment; or a landmark.

— Rosemarie P. Vassalluzzo

the edge of the ear were done with alstromeria leaves. The blue around the eyes was done with delphiniums, followed with the white of the eyes — white rose petals. The entire surface was gradually covered with petals from various flowers.

Probably one of the most interesting parts was the bloodshot whites of the eyes, using dissected Japanese red maple *(Acer palmatum* 'Dissectum Atropurpureum'). Finally, the horns were the inverted petals of a red anemone.

Mounted onto a 12x18 piece of walnut wood, painted black, my three-dimensional ceremonial mask was ready for the Show. I must admit to a true sense of accomplishment and pride, having spent more time, effort and energy on this mask than any other entry. So, some good did come from the winter of '94; it gave us more time than ever to work on the Flower Show entries.

Once the Show was over the big question became, where to hang this thing? For the time being it seemed appropriate to hang it over the fireplace, which blazed during the ceaseless blizzard-like winter. The eventual location of this prize winner has not quite been decided. Suggestions, however, have been amusing. From the interior of the hall closet, to the base of the cellar steps to the front door at Halloween — Voodoo-Vick has indeed become an integral part of the family.

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Rosemarie P. Vassalluzzo is a food and garden columnist throughout the Bucks County area, a frequent contributor to *Green Scene* and is a member of the Garden Writers Association of America. She is the winner of the Grand Sweepstakes Award at the Philadelphia Flower Show for 12 consecutive years. The Grand Sweepstakes Award is given to the individual exhibitor accumulating the highest number of points in all competitive classes of the Show.

Plant Societies' Special Meetings and Sales 1995

by Carol Lukens



AFRICAN VIOLET SOCIETY OF AMERICA, INC.

1995 AVSA Convention "Meet Me In St. Louis"
May 22-27
Adam's Mark Hotel
St. Louis, MO
Registration fee for members
Free admission to
Public on May 26

Plant Sale
May 24-27, 10-6pm
Adam's Mark Hotel
St. Louis, MO
Commercial Growers exhibit — hundreds of plants on exhibit in competition.

Contact:
Anne Tinari, Membership & Promotion Chair
2325 Valley Road
Huntingdon Valley, PA 19006
215-947-0144

DELAWARE AFRICAN VIOLET SOCIETY

African Violet Show "Ballet of Violets":
April 8, 1:30-9:30pm
April 9, 11-6pm
Christiana Mall
Newark, DE
just off I-95

Plant Sale
same as show

Contact:
Andrea Pirone
603 Cheshire Court
Wilmington, DE 19808
302-994-0513

AFRICAN VIOLET SOCIETY OF PHILADELPHIA

African Violet Show & Plant Sale
May 6, 12-9pm
May 7, 12-4pm
Chestnut Hill Water Tower Recreation Cnt.
Hartwell Lane & Ardleigh St.
Chestnut Hill, PA 19118

Open House
September 7, 7:30pm
Bodiee Hall
Roxborough Methodist Church
7805 Ridge Ave. & Shawmont
Roxborough, PA 19128

Contact:
Margaret Cass
920 Andorra Rd.
Lafayette Hill, PA 19444
215-836-5467

AFRICAN VIOLET SOCIETY OF SPRINGFIELD

"Violets in Victorian in Splendor" Show & Plant Sale
April 22, 10-9pm
April 23, 11-5pm
Springfield Mall
Baltimore Pike & Route 320
Springfield, PA 19064
(Delaware County)

Contact:
Nancy Corse
222 Ridgewood Rd.
Media, PA 19063-1724
610-566-5042

MID-ATLANTIC BONSAI SOCIETIES

Mid-Atlantic Bonsai Spring Festival
Lectures & Demonstrations by Pius Notter, Yasyo Mitsyua, Mary Madison, Robert Mahler & Bryan Hoerner
May 3-5
8pm Friday till 5pm Sunday
Holiday Inn — Grantville
I-81 at exit 28
Grantville, PA 17028
Full registration for the 3-day seminar: $105. Friday evening and all day Saturday: $75. Sunday only: $45
Exhibits and Vendors open to public for $3 entrance fee

Contact:
Kurt Wittig
17 Old Mill Drive
Denville, NJ 07834
201-361-6642

BRANDYWINE CONSERVANCY

Annual Wildflower, Plant & Seed Sale
May 13 & 14, 9:30-4:30pm
Brandywine River Museum
Routes 1 & 100
Chadds Ford, PA 19317

Contact:
Mark Gormel
Brandywine River Museum
Route 1
Chadds Ford, PA 19317
610-388-2700

PHILADELPHIA CACTUS AND SUCCULENT SOCIETY

Exhibit at the Philadelphia Flower Show
March 5-12
Philadelphia Civic Center
34th & Civic Center Blvd.
Philadelphia, PA 19104
Admission to Flower Show: $12.50

Plant Sale
September 16 & 17, 8-4pm
The Country Host Flea Market
Route 202
New Hope, PA 18938

Contact:
Marion Snyderman
1140 Bingham St.
Philadelphia, PA 19115
215-677-1636

AMERICAN CONIFER SOCIETY

3-Day National Meeting
August 3-5
Great Smokies Resort
Asheville, NC 28806
Approximately $150 plus hotel

Plant Sale
same as meeting

Contact:
Charlene Harris
827 Brooks
Ann Arbor, MI 48103-3161
313-665-8171 (H)
313-665-8720 FAX

DELAWARE VALLEY CHRYSANTHEMUM SOCIETY

Annual Chrysanthemum Show
October 14, 1-5pm
October 15, 10-5pm
Longwood Gardens
Kennett Square, PA 19348
Longwood admission: $10.00

Plant Sale
May 20, 10-4pm
Tyler Arboretum
Lima, PA 19037

Contact:
Ralph Parks
821 Meredith Dr.
Media, PA 19063
610-566-5644

CLYBURN ARBORETUM ASSOCIATION

Market Day
May 13, 9-3pm
4915 Greenspring Ave.
Baltimore, MD 21209-4698

Exotic & Native Plant Sale
September 9, 9-2pm
4915 Greenspring Ave.
Baltimore, MD 21209-4698

Contact: Market Day
T. Audrey Sawyer
4915 Greenspring Ave.
Baltimore, MD 21209-4698
410-367-2217

Contact: Exotic & Native Plant Sale
Adelaide Rackemann
4915 Greenspring Ave.
Baltimore, MD 21209-4698
410-367-2217

NEW JERSEY DAFFODIL SOCIETY

20th Annual New Jersey Daffodil Show
April 21, 1-5pm
April 22, 10-3pm
Frelinghuysen Arboretum
Haggerty Education Building
53 E. Hanover Ave.
Morristown, NJ 07960

Contact:
Shirley Cameron
231 Davison Pl.
Englewood, NJ 07631
201-569-9257

TUSCARORA DAFFODIL GROUP

Chambersburg Garden Club Daffodil Show
April 29, 2-9pm
April 30, 1-5pm
Chambersburg Mall
Cinemas Entrance
Scotland, PA 17254

Contact:
Richard Ezell
94 Willow Brook Dr.
Chambersburg, PA 17201
717-264-2269

DELAWARE VALLEY DAYLILY SOCIETY

Daylily Show
July 15, 12-5pm
Church-On-The-Mall
Plymouth Meeting Mall
Germantown Pike
Plymouth Meeting, PA 19462

Plant Sale
August 26, 9am, auction 12:30pm
Church of the Good Samaritan
212 W. Lancaster Ave.
Paoli, PA 19301

Contact:
Mitzi Samples
P.O. Box 159
Nottingham, PA 19362-0159
717-548-2381

DELAWARE VALLEY FERN AND WILDFLOWER SOCIETY

Fern Field Trip — North Jersey
June 10, 11 & 12
TBA

Fern and Wildflower Auction & Sale
April 29
TBA

Contact:
Jack Schieber
1621 Chinquapin Rd.
Holland, PA 18966-1719
215-357-3720

AMERICAN GLOXINIA AND GESNERIAD SOCIETY, LIBERTY BELL CHAPTER

Propagation Workshop and Speakers
May & November
Details TBA

Plant Sales
at meetings and shows

Contact:
Laura Shannon
8845 Norwood Ave.
Chestnut Hill, PA 19118
215-247-8527

Monthly Meetings
3rd Tuesday monthly (except summer), 7:30pm
Members' homes, TBA
Annual dues: $3

continued

Plant Societies' Special Meetings and Sales 1995

HOBBY **GREENHOUSE** ASSOCIATION — DELAWARE VALLEY CHAPTER

Meetings
3rd Saturday, bimonthly 10am
Horticulture Center
Fairmount Park
Philadelphia, PA 19131

Contact:
Bernie Wiener
229 Ellis Rd.
Havertown, PA 19083
610-446-2160

HERB SOCIETY OF AMERICA, DELAWARE VALLEY UNIT

Herb Plant Sale
May 20, 10am
Prallsville Mill
River Rd., Route 29
Stockton, NJ 08559

Contact:
Joan Schumacher
25 Rosemore Drive
Chalfont, PA 18914
215-997-1549

Herb Market Fair
October 21, 10am
Prallsville Mill
River Rd., Route 29
Stockton, NJ 08559

HERB SOCIETY OF AMERICA, NORTHERN NEW JERSEY UNIT

Annual Herb Sale
May 13, 10-3pm
Delbarton School —
St. Mary's Abbey
Rte. 24 — Mendham Rd.
Morristown, NJ 07960
(3 miles west of Morristown on Rte. 24)
25th Anniversary— featuring silver herbs

Contact:
Nancy Nicholas
180 Ann St.
Dover, NJ 07801
210-366-5153

HERB SOCIETY OF AMERICA, PA HEARTLAND UNIT

"Herbal Delights" Symposium
June 26 & 27
Albright College
13th & Union St.
Reading, PA 19604
Registration $25 plus $140 for 2 days, $70 for 1 day

Lecture by Tasha Tudor
June 25, 3pm
Northeast Middle School
1216 N. 13th St.
Reading, PA 19604

Contact:
Priscilla Plucinsky
403 Arrowhead Trail
Sinking Spring, PA 19608-9581
610-670-9829

HERB SOCIETY OF AMERICA, SUSQUEHANNA UNIT

Annual Herb & Geranium Sale
May 6, 9-1pm
Farm and Home Center
1383 Arcadia Road
Lancaster, PA 17601

Contact:
Michele Miller
1419 Valley Road
Lancaster, PA 17603
717-399-0228

THE HIGHLANDS **HISTORICAL** SOCIETY

The Highlands Garden Party and Herb Sale
May 17 & 18, 10-6pm
7001 Sheaff Lane at Route 73
Fort Washington, PA 19034
Fee: $25 for lecture, luncheon & plant sale on May 17
Reservation required
$3.00 general admission to plant sale

Contact:
Stephen Hague
7001 Sheaff Lane
Ft. Washington, PA 19034
215-641-2687

HOLLY SOCIETY OF AMERICA, DELAWARE VALLEY CHAPTER

Meeting
April, time & location TBA
September, time TBA
Willowwood Arboretum
Morristown, NJ

Plant Sale
same as meeting

Contact:
Thein Myint
933 Morris Ave.
Bryn Mawr, PA 19010-1851
610-525-0599

HORTICULTURAL SOCIETY OF SOUTH JERSEY

Flower Shows
May 9, 8pm
September 12, 8pm
Cherry Hill Community Room
820 Mercer Street
Cherry Hill, NJ 08034

Monthly Meetings
2nd Tuesday, January thru June, September thru December, 7:30pm
Cherry Hill Community Room
820 Mercer Street
Cherry Hill, NJ 08034

Contact:
Rita Hojnowski
517 Cecelia Drive
Blackwood, NJ 08012-3808
609-227-0599

DELAWARE VALLEY **HOSTA** SOCIETY

Slide Lecture by Mark Zilis & Plant Sale
March 18, 1pm plant sale, 2pm lecture
Ramada Inn
Route 1 & Route 202
Chadds Ford, PA 19317
Free & open to public

Garden Visits & Plant Auction
June 3, 10-4pm, 2:30 sale
John & Carol Dietz residence
602 Black Gates Rd
Edenridge
Wilmington, DE 19803
Free & open to public

Contact:
Warren Pollack
202 Hackney Circle
Surrey Park
Wilmington, DE 19803-1911
302-478-2610



photo by Bobbie Robinson

The Southeastern Pennsylvania Orchid Society display at the New York Orchid Show in the Winter Garden at the World Trade Center.

PHILADELPHIA CHAPTER OF **IKEBANA** INTERNATIONAL

Ryusei-Ha Demonstration Professor Shozo Sato, Master
April 20, 10am
Radnor Library
Wayne, PA 19087
Guest fee: $5

Plant Sale
same as show

Contact:
Mary Lou Kenny
RD #1, Box 202
Glenmoore, PA 19343
610-469-9646

DELAWARE VALLEY **IRIS** SOCIETY

American Iris Society National Convention
May 23-27
York, PA
Sponsoring Society: Susquehanna Iris Society
Call for details

Contact:
National Convention
Sterling Innerst
2200 A Oakland Rd.
Dover, PA 17315
717-764-0281

Plant Sale
July 15, 10-2pm
Jenkins Arboretum
631 Berwyn-Baptist Rd.
Devon, PA 19333

Contact:
Plant Sale
Charles & Betty Conklin
91 Duncan Lane
Springfield, PA 19064-1601
610-544-3984

DIAMOND STATE **IRIS** SOCIETY

Bearded Iris Show
May 20, 12-8pm
Christiana Mall
Newark, DE
at intersection of I-95 & Route 7

Plant Sale
July 8, 10-2pm
Prices Corner Shopping Center
on DE Route 2 (Kirkwood Highway)
Dover, DE

Contact:
Mrs. Arthur F. Martin
116 Meriden Drive
Hockessin, DE 19707
302-998-2414

MARIGOLD SOCIETY OF AMERICA

Annual Meeting
Details TBA
Annual Dues: $12

Contact:
Jeannette Lowe
394 West Court
Doylestown, PA 18901
215-348-5273

FRIENDS OF THE **NATIONAL ARBORETUM**

Rare Plant Auction & Gardeners' Plant Sale
April 22, 10-3pm
U.S. National Arboretum
3501 New York Avenue, NE
Washington, DC 20002
No fee to enter, $10 to register as bidder
Live auction, silent auction and cash and carry
For details call FONA Office
202-544-8733

Contact:
Diane Nowak-Waring
U.S. National Arboretum
3501 New York Avenue, NE
Washington, DC 20002
202-544-8733

NEW JERSEY **NATIVE PLANT** SOCIETY

Annual Meeting	**Plant Sale**	**Contact:**
March 18, 10am	May 20 & 21, 9-5pm	Jeff Bottger
Holly House	Display Gardens	c/o T&M Associates
Cook College Campus	Cook College Campus	P.O. Box 828
Rutgers University	Rutgers University	Red Bank, NJ 07701
New Brunswick, NJ	New Brunswick, NJ	908-842-5839 (H)
		908-671-6400(W)

DELAWARE **ORCHID** SOCIETY

Monthly Meetings	**Annual Orchid Auction**	**Contact:**
Second Tuesday every month 7:30pm except July & August	April 30, 1pm	Art Chadwick
	Talleyville Fire Hall	520 Meadowlark Lane
Delaware Veterans Hall	U.S. Route 202	Hockessin, DE 19707-9640
Veterans Drive & Naamans Rd	Talleyville, DE	302-656-1091
	(just north of Wilmington)	
Wilmington, DE		

DELAWARE VALLEY **ORCHID** COUNCIL

7th Annual DVOC Speakers Forum	**Contact:**
Speakers: Juan Carlos Uribe, Gene Crocke & Tom Harper	Lois Duffin
	7411 Boyer St.
Topics: Columbian species, Cattleyas & Phalaenopsis	Philadelphia, PA 19119
	215-248-3626
March 25, 8:30-4pm	
Travel Lodge	
Mt. Laurel, NJ	
Fee: $25, includes buffet lunch	
10 Dealers will also sell orchid plants	

GREATER PHILADELPHIA **ORCHID** SOCIETY

Monthly Meetings	**GPOS Annual Orchid Auction**	**Contact:**
3rd or 4th Thursday, September thru June, 8pm	September 28, preview 7pm, auction 7:30	Lois Duffin
		7411 Boyer Street
		Philadelphia, PA 19119
Merion Friends Activities Center	Merion Friends Activities Center	215-248-3626
615 Montgomery Ave.	615 Montgomery Ave.	Tee Adams
Narberth, PA 19073	Narberth, PA 19073	P.O. Box 328
(next to General Wayne Inn)		Devon, PA 19333-0328
		610-687-5600

SANDPIPER **ORCHID** SOCIETY

Orchid Exhibit	**Plant Auction**	**Contact:**
in conjunction with 2 other South Jersey Orchid Societies: TBA	August 24, 7:30pm	Judy Mutschler
	Mays Landing Library	2033 Philadelphia Ave.
	40 Farragut Ave.	Egg Harbor, NJ 08215
	Mays Landing, NJ 08330	609-965-0048

SOUTHEASTERN PENNSYLVANIA **ORCHID** SOCIETY

Monthly Meetings	**Orchid Auction**	**Contact:**
2nd Wednesday — September thru May	October 2nd Wednesday	Deborah Robinson
		2604 Horseshoe Trail
		Chester Springs, PA 19425
All Saints Episcopal Church		610-827-7445
Gypsy Lane at Montgomery		
Narberth, PA 19072		

Annual Orchid Show
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AMERICAN **PRIMROSE** SOCIETY, DORETTA KLABER CHAPTER

Seed Sowing Meeting	**Contact:**
February	Dot Plyer
Members only	18 Bridle Path
Membership dues: $3 per mailing address	Chadds Ford, PA 19317
	610-459-3969

AMERICAN **RHODODENDRON** SOCIETY, GREATER PHILADELPHIA CHAPTER

Rhododendron & Azalea Display at the Philadelphia Flower Show	**Plant Sale & Flower Show**	**Contact:**
March 5-12	May 13, 10-4pm	Howard H. Roberts
Philadelphia Civic Center	Morris Arboretum of the University of Pennsylvania	1319 Wendover Rd.
34th & Civic Center Blvd.		Rosemont, PA 19010
Philadelphia, PA 19104	100 Northwestern Ave.	610-525-4731 (H)
Admission to Flower Show: $12.50	Philadelphia, PA 19118	610-649-2800 (W)

AMERICAN **RHODODENDRON SOCIETY**, VALLEY FORGE CHAPTER

Truss Show	**Plant Sale**	**Contact:**
May 14, 1-5pm	May 6, 9-3pm	Winfield Howe
Longwood Gardens	May 7, 11-3pm	7 Surrey Lane RR 2
Kennett Square, PA 19348	Jenkins Arboretum	Downingtown, PA 19335-1507
Longwood admission	631 Berwyn Baptist Rd.	
	Devon, PA 19333	610-458-5291

AMERICAN **ROCK GARDEN** SOCIETY, DELAWARE VALLEY CHAPTER

Monthly Meeting	**Plant Sale**	**Contact:**
2nd Saturday, 10am	June 10, 9-11:30am	Michael Slater
Location published in newsletter	Robbins Nature Center	RD 4, Box 4106
	Ambler, PA	Mohnton, PA 19540
		610-775-3757

DEL-CHESTER **ROSE** SOCIETY

35th Annual Rose Show	**Rose Pruning Demonstration**	**Contact:**
June 10, 1pm, entries 6-10am	April 1, 9-12am	Pat Pitkin
Longwood Gardens, Terrace Restaurant	Memorial Rose Garden	923 Springwood Drive
	St. Maximillian Kolbe Church	West Chester, PA 19382
Kennett Square, PA 19348		610-692-4076
Longwood admission fee	15 E. Pleasant Grove Rd.	
	West Chester, PA 19382	
	(off Route 202 S of West Chester, PA)	

PHILADELPHIA **ROSE** SOCIETY

49th Annual Rose Show	**Pruning Demonstration**	**Contact:**
June 4, 1-5pm	April 1, 1-3pm	Mrs. Pat Pitkin
Roses entered 7-10:30am	Rain date April 2, 1-3pm	923 Springwood Dr.
Widener Education Center	Morris Arboretum Rose Garden	West Chester, PA 19382
Morris Arboretum of the University of Pennsylvania		610-692-4076
	100 Northwestern Avenue (entrance)	
Philadelphia, PA 19118	Philadelphia, PA 19118	
Gate fee: $3, free to exhibitors		

DELAWARE VALLEY **WATER GARDEN** SOCIETY

Pond Tour	**Contact:**
July	Fred Weiss
Details TBA	610-667-7545

BOWMAN'S HILL **WILDFLOWER** PRESERVE

Wildflower Weekend	**Spring Plant Sale**	**Contact:**
May 6, 8-5pm	May 13 & 14, 10-4pm both days	Greg Edinger
May 7, 11-5pm		P.O. Box 103
Bowman's Hill Wildflower Preserve	Bowman's Hill Wildflower Preserve	Washington Crossing, PA 18977
Route 32, two miles south of New Hope, PA	Route 32, two miles south of New Hope, PA	215-862-2924
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Non-members: $25/day, $45/both days.		

Additional Plant Society Information
For list of other local and national plant society contacts, check with the Pennsylvania Horticultural Society Library (215-625-8256).

For Future Listings
Green Scene publishes a list of area plant society meetings and plant sales annually in the March issue of *Green Scene*. DEADLINE: October 30. Please follow format used here. Write to: Editor, *Green Scene*, PHS, 325 Walnut Street, Philadelphia, PA 19106-2777.

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Congo peppers in Jeff Clarke's garden. See page 8.
photo by Ira Beckoff

18 27

GREEN SCENE

THE PENNSYLVANIA HORTICULTURAL SOCIETY • *May/June 1995* $2.75



From Horses to Herbs on a Westtown Farm

See page 3.



3.



18.



29.

Front cover: Purple brussels sprouts add color to the vegetable garden as do orange cosmos, white carrot blossoms and morning glories on the cedar fence at a Westtown garden that was part of a horse farm only two years ago.
photo by Mary Lou Wolfe

Grow with us.

in this issue

3. From Horses to Herbs: Organic Gardeners Dig in on a Westtown Farm
by Mary Lou Wolfe

9. Chinese Tree Peonies
Debra A. Aleksinas

13. Answer the Silent Voice of Hunger
Libby J. Goldstein

18. Hummertime
Helen Tower Brunet

21. Planting a Friendship Garden
Thea Steinmetz

24. A Garden for the Challenged
Dorothy Noble

29. Bitten and Smitten by the Butterfly Bug
Linda J. Young

32. Junk Changes to Treasure in a Seashore Garden
Gretchen F. Coyle

33. Plantfinder

34. Classified Advertisements

CORRECTION:

March *Green Scene* — A Rich Harvest of Eggplants and Peppers/Author Stephen Clarke regrets the transposition of the description of Congo and Hungarian Hot Wax on the list of Pick of the Peppers on page 11. Congo (correctly identified in photos) is golden yellow Habanero-type pepper on a 4-ft. plant. Very Hot! Hungarian Hot Wax is a medium-hot variety. Fruits are 6 inches long, banana-shaped and ripen from green to yellow to red.

Jean Byrne, Editor

Volume 23, Number 5 May/June 1995

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FROM

HORSES

TO

HERBS

Organic Gardeners Dig in on a Westtown Farm

by Mary Lou Wolfe

A young family of three moves from a tiny suburban front-yard garden to a former horse farm, and their gardening dreams burst forth abetted by good planning and hard work.

"It's the first time I've gardened in the same place for three years in a row." Looking around on a September day last fall, I could see that a bountiful vegetable garden had been established and that acres of taming, landscaping and building repair still lay ahead of this energetic gardener, Margery Howe. I was looking at a gently sloping five-acre farm on the Chester/Delaware county border, a farm that definitely showed its age. That's a plus when its main dwelling, a cabin made of round logs, is still standing and attractively habitable after nearly 300 years. On the minus side, the tilting wood silo, ancient barn and sagging split-rail fences obviously needed repair.

Until the spring of 1992, this land called "Elysian Hill" by its former owners had been operated as a horse farm supporting nine horses. A portion of their pasturage had been sold a year earlier and owners, horses and the manure pile headed west for wider, greener pastures.

Enter frustrated gardeners Margery, James and small daughter Emily Howe.

continued



A teepee planted with asparagus yardlong beans, topped with a birdhouse made from a home-grown gourd.

photo by Mary Lou Wolfe

photos by Mary Lou Wolfe



Above: Margery Howe's pumpkins and assorted squash cure on a covered porch. Margery holds two sweet potatoes the mice didn't eat. **Left**: If this leaning wooden silo could talk, it would beg its owners for euthanasia. The act is high on Margery's project list for '95.

They had tried to "farm" on their narrow Havertown lot, digging up their whole back yard for vegetables and planting the tiny front space in tomatoes, peppers, blueberries and a peach tree. Front-lot fences were against township ordinances and this out-front farming was frowned on by their neighbors. Feeling like misfits in this tight, suburban neighborhood, the Howes looked beyond city limits and fell in love with "Elysian Hill," purchasing the old horse farm in Thornbury Township in 1992.

They were fortunate to find a restoration builder who knew how to deal with and respected, ancient houses. This dwelling had rotting logs, ivy growing through window frames, mossy roof shingles, a sagging septic system, and chirping birds nesting inside the walls. In the nine months required for basic house renovation the Howes began mapping out a gardening strategy. They wanted to grow vegetables and fruits for their family using organic methods. They planned to plant native shrubs and trees on their boundaries, and to



do most of the work themselves. They hoped their daughter would grow up sharing their enjoyment of plants and the out-of-doors.

The only horticultural pluses on the old farm had been the huge, aged manure pile (which moved with the horses); a long row of daylilies *(Hemerocallis fulva)* bordering the curving, rutted driveway; several venerable unkempt oaks and maples; and seven unpruned apple trees. The soil in the horse compound was compacted from 30 years of hoof pounding. Without horses as weed eaters, burdock, dock and plantain sprouted exuberantly. James rented a rototiller to loosen the compacted soil and managed to churn only the top few inches, turning the area into a dustbowl. Realizing that improving this soil was a long-term project, they planted buckwheat, alfalfa and sesame seed to start the enrichment process. Why sesame? "Because I had a lot of seed left over," said Margery.

In the meantime, with May upon them, they needed an instant-gratification garden

Emily's nursery school class helped harvest 26 of James's pumpkins just before Halloween.

space and chose a sheltered fence line where they planted beets, tomatoes, lettuce and squash. The yield was one tomato. Deer discovered that the farm's new owners offered a delicious, exotic menu. Beets disappeared completely overnight. Squash leaves, not protected by netting, were promptly devoured with squash borers taking over the inside demolition. Only Emily's garden survived. Her parents had wanted to get her connected immediately with a surefire gardening project. They moved their Havertown compost pile into some large, raised containers in a sunny, sheltered spot between the old barn and the pumphouse. Three-year-old Em planted scarlet runner beans, lettuce, cherry tomatoes, and tossed in a few morning glory seeds. Purchased pansies gave instant color. Her corner proved too civilized for the deer and Emily's garden flourished. Her small thumb was greening.

By fall, with the Havertown house still unsold, the Howes commuted daily to their new property, passing streets lined with neatly bagged Merion Township leaves awaiting curbside collection. No one minded their lightening the township's pick-up load, so on each trip they hauled 10 big bags of leaves to their new/old farm. By the end of October they had emptied 80 bags along the riding-ring fence line. The new compost process was off to a big start, the hard-to-mow weeds were smothered, and the Merion Township landfill was a little less full.

By spring of '94 James had acquired a John Deere tractor. He tilled the cover crop in the old riding ring and found definite improvement in the soil. He added slow-acting ground Dolomite limestone and planted corn and pumpkins at two-week intervals.

To control deer he erected a 4-ft.-high fence of 4-in.-square turkey wire. Too soon, deer jumped the fence, feasting on seedling corn. He then put up snow fencing placed 5 ft. from the wire fence. This has worked for the pumpkins and corn crop of 'Silver Queen,' 'Seneca Horizon,' and a Pennsylvania Dutch variety of popcorn (from Fox Heirloom seeds). Emily's nursery school class helped harvest 26 of James's pumpkins just before Halloween.

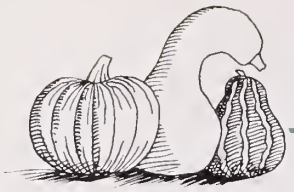
Margery, in earlier lives, had gardened wherever she could, but never long enough to feel permanently rooted. Having finally sold the Havertown house, painted the log cabin's interior, planted the farm's most exposed property line with cedars, lilacs, and *Rosa rugosa,* she was ready to tackle a permanent vegetable garden. A stint in the restaurant business in the Pacific Northwest had honed her cooking skills and deepened her appreciation for really fresh, organically grown vegetables. She spent the winter of '93-'94 plotting her dream garden. Catalogs accumulated, seed orders arrived and every sunny spot in the log cabin sprouted seedlings. Emily's old cradle sported a canopy of fluorescent lights beaming down on assorted tomato seedlings.

Long a reader of *Organic Gardening Magazine* and books by Nancy Bubel, Shepherd Ogden and Eliot Coleman, it was Patrick Lima and John Scanlan's book *The Natural Food Garden* that really inspired Margery. Her plan was ready on paper for the permanent vegetable garden. It would be between house and barn where horses had not romped as much as in the old riding ring. James tilled a 40-ft. x 60-ft. plot in mid-March and two weeks later, plowed again, killing most of the early weeds.

Together, using string and pegs, they laid out 24 beds, each 15 ft. x 3½ ft. Margery started on the north side, raking the plowed soil into raised beds leaving pathways in between. When she had finished the northernmost beds, she planted them with seedlings of lettuce, artichokes and broccoli, all early cool crops.

The Howes knew their new garden would attract deer. An old bathtub, left over from horse occupancy, had been a handy water reservoir but also, they realized, a lure for thirsty deer. They got rid of the old tub. A more momentous decision was to have a fence built. They chose 6-ft. cedar boards spaced 2 inches apart with gates on house and barn sides. The fence kept deer out last year and if they jump the fence next year, several strands of wire can be added to the top of the fence.

By mid-April the log cabin was bursting with seedlings that needed to be hardened off before planting. A sunny outside porch sheltered some during the day while others were acclimated in makeshift cold frames made from bales of straw, roofed with old window sashes. Pepper seedlings went into a neighbor's small greenhouse until mid-May planting. As Howe gradually moved seedlings into the raised beds, she used 40 to 50 hot caps for tomatoes, peppers and eggplants. She tore the tops open immedi-



photos by Mary Lou Wolfe







Top left: James Howe with pumpkins nursery school children picked in his riding ring garden. **Top right**: Three-year-old Emily shows off a purple cabbage to her nursery schoolmates on their pumpkin collection trip. **Bottom**: The nursery schoolers get some help loading the 26 pumpkins they picked from Jim's garden.



The bean teepee and sunflower plantings are a great hide-and-seek cover for Emily.

All was not perfect though: the unsprayed broccoli flowers harbored tiny worms, mice ate the sweet potatoes, the summer squashes were again attacked by borers, and the early peas ('Wando' and 'Earl Grey') were a flop. Margery may use a Bt spray on broccoli and cabbage next year and also hopes to introduce some chickens (Barred Rocks and Dominiques) for insect control.

ately to insure air exchange and enlarged the holes as the plants grew, leaving most on all summer. She experimented with the "Wall 'O Water" insulation but finds that system too expensive for her numerous plants.

Margery had grown artichokes successfully on Washington's Olympic Peninsula (Zone 8) and was eager to try them in her Zone 6 garden. She sowed seed *(Cynara scolymus* 'Imperial Star' from Shepherd's) in March, chilled the seedlings on her cool porch to make them think they'd experienced winter, and transplanted six plants in April. They picked the first artichoke on July 1st.

On visits last fall, I thrashed my way through burgeoning mounds of anise, hyssop, camomile, tender sages, calendulas, cosmos, and lavender that took over the wood-chipped walkways. I asked Margery how she chose the perennials and annuals to plant with the vegetables. "For my own pleasure. I love the scents, and we want to attract beneficial insects. We had predator wasps and praying mantids; James's sister, who studies insects, counted 18 species of butterflies and moths." Emily understands the butterfly cycle and spots swallowtail caterpillars on parsley and rue.

Another plant grown for pleasure and architectural effect was cardoon *(Cynara cardunculus).* Its tall silvery stems with intensely blue thistle-like flowers had a 3-ft. spread. Not hardy here, Howe treats it as a tender perennial.

After the one tomato harvest in '93, last summer's yield was bountiful. In addition to more tomatoes than a family of three could possibly eat, there were good yields of beans, strawberries, swiss chard, beets, carrots and successions of lettuces. Margery speculates that her early additions after plowing, of lime, rock phosphate and "green sand" to soil used before only as pasture, released minerals that produced a true

RECIPES

Basil Jelly (4 half-pints)

1½ cups packed fresh basil
2 cups water
2 Tablespoons rice vinegar
a pinch of salt
3½ cups sugar
3 ounces liquid pectin

Coarsely chop clean basil and place in a saucepan. Add the water, bring to a boil and boil for 10 seconds. Remove pan from heat and cover it immediately. Let steep until cool (overnight is fine). Strain 1½ cups of the "tea" into another saucepan. Add the vinegar, salt, and sugar and bring to a hard boil, stirring constantly. When the boil can't be stirred down, add the pectin. Return to a hard boil that can't be stirred down, and boil for one minute; remove pan from heat.

Skim off the foam and pour hot jelly into sterilized jars. Leave 1½-inch head space and seal with sterilized two-piece lids.

Recipes from a Kitchen Garden, Renee Shepherd (Shepherd's Garden Seeds) and Fran Raboff, Ten Speed Press, Berkeley, CA, 1993.

Yard Long Beans

Cut freshly picked Yard Long or Asparagus Beans into bite-size pieces. Heat a skillet and add some olive oil. Saute the beans briefly and add some soy sauce to the still hot pan. Serve immediately.

These beans are often gobbled up by small children who "hate beans."

Pumpkin Soup (a large quantity)

This is an adaptation of a recipe given out at the John Chad House in Chadds Ford, Pa., on "Pumpkin Day."

1 medium pumpkin
2 onions, finely diced
¼ cup olive oil, or butter
1 package frozen corn, or
1 can corn w/liquid
½ teaspoon salt
1 quart water or chicken broth
2 cups half-and-half (cream)
½ cup fresh basil, or
basil preserved in oil

Cut up the pumpkin, spread the pieces on a baking sheet and cook in a hot oven until done. Let cool, and then scrape the cooked pumpkin from the rind.

Saute the onions in the oil, or butter, until they are translucent. Add the cooked pumpkin, corn, salt and water or broth. Simmer 10 minutes to blend flavors. Remove from heat. When cool enough —puree about one-third of the soup in a blender or food processor. Add puree back to main pot. Reheat, adding chopped basil. When soup is hot, and just before serving, add the cream.

The quantity of water or stock is variable depending on consistency of the pumpkin. Sometimes more salt is necessary for flavor if water is used instead of broth.

Margery Howe



bumper crop. All was not perfect though: the unsprayed broccoli flowers harbored tiny worms, mice ate the sweet potatoes, the summer squashes were again attracked by borers, and the early peas ('Wando' and 'Earl Grey') were a flop. Margery may use a BT spray on broccoli and cabbage next year and also hopes to introduce some chickens (Barred Rocks and Dominiques) for insect control.

Emily graduated to a larger 10-ft. x 12-ft. garden which she and her mother planted with quick and gratifying results in mind. Hugely successful was a bean teepee planted with asparagus yard long beans. They picked these at 14 inches, skinnier than a pencil and absolutely delicious sauted in olive oil and sprinkled with soy sauce. A home-grown bird-house gourd topped the teepee. Gourds, squash, tithonia and heavenly blue morning glories flourished, protected by a circle of snow fence and a "found" gate.

Plans for the '95 vegetable garden include crop rotation of most of the 24 beds and opening up of the central axis. "For aesthetic reasons," says Margery, "we'll turn the four central beds into permanent, low, perennial herb beds." They'll space tomatoes 3 feet apart because this rich soil produced a third more foliage in '94, crowding plants on 2-ft. centers. Howe expects to work on "bed-specific" soil supplements, for example, well-rotted manure and compost on asparagus beds. The base of the cedar fence was invaded by rabbits and will need to be trenched, gravelled and chicken-wired. The rabbit invasion came to light when Margery watered the potato patch during a dry spell. Its ample mulch covering of grass clippings undulated when hosed. Careful investigation uncovered four very tiny bunnies, which delighted Emily and were tolerated by her mom. They never saw the mother rabbit but assumed she slipped under the fence at night to nurse her brood. The rabbits grew better than the potatoes.

The name "Elysian Hill" departed with the former owners, but its Webster's meaning, "sweetly blissful; beatific" still hangs over this evolving property. The Howes will never lack projects, they'll eat very well, and Emily is launched as a gardener.

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Writer/photographer Mary Lou Wolfe gardens in Delaware County. She is a frequent contributor to *Green Scene.*

Some Favorite Varieties

(Numbers correspond to sources — see Sources box)

Artichoke	Imperial Star (5)
Basil	Sweet Genovese (2) (widely available)
Beans	King of the Garden Pole Lima (3) Asparagus Bean (Yard Long Bean) (6) Trionfo Violetto (2)
Broccoli	Green Comet (1)
Carrot	Artist (4)
Eggplant	Orient Express (4)
Kale	Red Russian (5)
Lettuce	Tom Thumb (2) Red Sails (2)
Peppers	Lipstick (4) Italia (4)
Purslane	Goldberger (2)
Spinach	Giant Thick Leaved (3)
Squash	Buttercup (3) (widely available) Delicata (3) (widely available)
Tomato	Yellow Plum (7)

Seed Sources

(1) W. Atlee Burpee Co.
300 Park Ave.
Warminster, PA 18974
Free catalog

(2) The Cook's Garden
P.O. Box 535
Londonderry, VT 05148-0535
Free catalog

(3) Heirloom Seeds
P.O. Box 245
W. Elizabeth, PA 15088-0245
Catalog $1

(4) Johnny's Selected Seeds
Foss Hill Road
Albion, ME 04910
Free catalog

(5) Shepherd's Garden Seeds
30 Irene Street
Torrington, CT 06790
Free catalog

(6) Sunrise Enterprises
P.O. Box 1960
Chesterfield, VA 23832
Catalog $2

(7) Totally Tomatoes
P.O. Box 1626
Augusta, GA 30903-1626
Free catalog

Margery Howe

Margery Howe's Favorite Gardening Books

**The Cook's Garden,* Shepherd & Ellen Ogden, Rodale Press, Emmaus, PA, 1989. This book conveys much of the type of information you can glean from a good seed catalog. I use it to compare varieties. It has guidelines for efficient spacing of plants to maximize harvests in beds.

**The Country Journal Book of Vegetable Gardening,* Nancy Bubel, Country Journal Pub. Co., Inc., Brattleboro, VT, 1983. Although Nancy Bubel does not live in Philadelphia she does live in Pennsylvania, and I value her recommendations for specific plant varieties and types for this region. Her suggestions and observations are backed by many years of gardening expertise.

52 Weekend Garden Projects, Nancy Bubel, Rodale Press, Emmaus, PA, 1992.

Four Season Harvest, Eliot Coleman, Chelsea Green Publishing Co., Post Mills, VT, 1992. Eliot brings the experience of a market gardener emphasizing the importance of feeding the soil and crop rotation. In this book he offers ways to extend the harvest at both ends of the growing season through the use of cold frames *and* a tunnel greenhouse. This is my next project.

**Gardening at a Glance,* Tanya Denckla, Wooden Angel Publ., Franklin, WV, 1991. This older version (republished recently as *The Organic Gardener's Home Reference,* is laid out for easy overview of specific plant needs and available varieties.

**Handbook of Garden Projects for all Seasons,* Nancy Bubel, Rodale Press, Emmaus, PA, 1993.

The Natural Food Garden, Patrick Lima, Prima Publishing, Rocklin, CA, 1992. Inspirational photos of one "potager" garden through the gardening season. Lots of practical advice based on years of experience in this garden. This is what I would like my garden to look like in 10 years.

*Available to members through the Pennsylvania Horticultural Society's Library.

Margery Howe

CHINESE TREE PEONIES

by Debra A. Aleksinas

Cricket Hill Garden in Thomaston, Connecticut, claims the most extensive collection of Chinese tree peonies outside of China.



Twin Beauty.

photo supplied by Cricket Hill

David and Kasha Furman sell antiques — sort of. Actually, both avid gardeners, they collect and sell rare Chinese tree peonies *(Paeonia suffruticosa)* at their Cricket Hill Garden in Thomaston, Connecticut.

"When you buy one, you're buying a Chinese antique," says Furman, who notes that his prized peonies are either clones or grafts of plants dating back some 1,200 years. And, he adds, he and his wife may be "the only people in America who import the named varieties of these flowers" from China.

Furman believes the way different civilizations view gardens, in use and design, may reflect differences in artistic taste. "In the Chinese garden the elements of rocks, water and plants must all be, to their eye, in a balance that mimics nature," he explains. "Consequently, flowers play a relatively minor role in this configuration." It is, therefore, surprising that so much attention is paid to the Chinese tree peony, he muses.

The tree peony has inspired poets and painters throughout Chinese history. The Mandarins of classical China took great pride in the plants, because they reflected their exquisite taste and sensuality. While those ancient gardens are today considered cultural treasures, Furman says he offers modern-day gardeners a chance also to revel in the beauty of this garden gem.

At Cricket Hill Garden, classical Chinese tree peonies are imported directly from the People's Republic of China. Today's flowers, descendants of those developed over 1,000 years ago, have been part of the Chinese garden tradition since the Sui Dynasty (581 A.D.) and are still regarded as the epitome of Chinese garden culture.

One glance at these flamboyant blossoms and we understand why the Chinese call them the "King of Flowers." They vary from singles to what the Chinese call "thousand petal," and they blaze in vibrant shades of red, pink, purple, white, yellow, black (actually an intense maroon), green, and some are even multi-colored.

Since opening his Thomaston business about five years ago, David Furman says he has been astounded by the response to his prized plants, which range in price from $50 to $400. The tree peonies usually bloom during the second week in May and continue through early June. In the warmer Delaware Valley area, these dates occur a week or 10 days earlier.

"They've never been an inexpensive plant, and they've never been a common plant," he explains. "They are not priced by beauty, but by the difficulty in propagating them."

Furman points out that the reason some of the plants offered at Cricket Hill Garden are more expensive than others is because propagation is not reliable by seed. Grafting the tree peony terminal bud on the root of a herbaceous peony or root division of older plants are the only reliable methods for increasing the stock of specific plants.

The flower shapes range from singles [one or two rows of petals] to semi-doubles, to full double, with as many as 300 petals. Flowers range in size from typical 8-inch to those with an extraordinary 12-inch diameter (see chart).

"The Chinese prefer large flowers with many, many petals, and pay the price for this shape. Such flowers are very heavy," Furman notes. So heavy, in fact, that some blooms, particularly the thousand-petal

photos supplied by Kasha Furman





varieties, hang face downward on the plant.

In naming flowers, as with other aspects of Chinese culture, literary, historic and poetic references are often used. 'Peach Blossom Complexion' is meant to recall a highly desirable coloring in a woman's face. It blooms in a single or semi-double flower shape, its color is coral pink with frosted edges. 'The Fire That Makes the Pills of Immortality' with a full double flower shape, is fire red in color. It is the shade of red that we in the West think of as Chinese red. In China, this is the luckiest color with many pleasant associations, this one with the fabled pills of immortality. 'Purple Sea Cloud' is pinkish-purple with some frosting at the petal tips. Its shape is a

Top: Waft of Aroma of Lan Tian.
Bottom: Jade Plate White.

chart designed and illustrated by Kasha Furman

Color Chart with Flower Shapes	Coral Pink	Apricot	Light Pink
Single	Peach Blossom Complex-ion		
Light Semi-double	Gold Dusted Pink	Peach Blossom Spring	Zhao's Family Pink Multicol Butterfly
Heavy Semi-double			Big Flow with a Lotus Ro
Double			
Ruffled Ball	Necklace with a Precious Pearl		Goddess Mt. Ome
Thousand Petal			Embroi-dered Si Ball
Crown			Laurel Upon a Pink Tra
Rumpled			

ruffled ball and its name derives from the color of clouds in the sky.

The rarer varieties include 'Twin Beauty,' a unique plant that has some of its flowers with laterally divided colors — half of the flower is red, half pink, and 'Imperial Yellow Robe,' with blossoms the color of sunlight, one of the few Chinese tree peonies of that color. Especially striking is 'Pea Green,' an unusual plant that originated in the Sung Dynasty. At opening, its flowers are pea green, and change to white at maturity. It is the most difficult to get to bloom well, said Furman.

Unlike the more common backyard variety of peony, the herbaceous peony, which dies down during the cold months and comes back in spring, tree peonies are actually woody shrubs. "They're much like a blueberry bush in the wintertime, with a network of branches and stems that grows larger each year," Furman explains.

The Chinese have always placed a high value on these plants. Furman mentioned that he was told by his Chinese supplier that some varieties, as recently as the 1990s, were not permitted to be exported. He quoted a comment from the Sung Dynasty (960–1270 A.D.): "Nowadays, the tree peony increases and multiplies yearly. The 'Yao Family Yellow' and 'Wei Family Purple' are a thousand cash for a single stem. No one will sell me 'Yao's Family Yellow.' " Until recently, no one would sell Furman the Yao's Family Yellow either. He says he feels that this was a misguided attempt on the part of the Chinese to protect their cultural heritage.

The Chinese peony is cultivated at present in regions close to the Yellow River in north China, he said, "where the climate is similar to our own. They grow and bloom as far south as Shanghai, however, with a climate comparable to Georgia or the Los Angeles areas. They will grow in full sun, but much prefer dappled shade or morning sun. If they are planted in full sun the flowers will come and go in one or two days. In shaded conditions, flowers will last a week to 10 days."

Otherwise, he points out, the peonies, which are said to last for several hundred years, are easy to grow and take care of, particularly because the plants generally are almost entirely free of insect pests and disease. The only thing they are slightly susceptible to, he said, is the common

Mid-Pink	Magenta Pink	Silver Red	Red	Maroon	Magenta Red	Lt. Pink Purple	Magenta	Dark Magenta	Light Green	Light Yellow	Cream	White	Multi-Color
	Sichuan Peach Blossom Centerpiece of Fruit				Magenta Splashed Ink		Golden Lotus					Lotus that shines in the Sun	
innabar ampart athering Rosy louds	Smiling Among the Thicket	Hu's Family Red			Luoyang Red	A Waft of Aroma of Lan Tian		Green Dragon Lying on Chinese Ink Stone			Big Yellow Flower	Jade Plate White	
ink Lotus	Blue Sea with Green Waves	Number One Scholar's Red	Big Red Gown	Gold Fields in Chinese Ink				Purple of the Sung Dynasty				White Light that Shines in the Night	Twin Beauty
listening lver Pink	Lu's Family Red	Merry Charm	The Fire that Makes the Pills of Immortality	Chief Red	Peach Red with Ingratiating Smile	Lan Tian Jade	Wei's Family Purple False Purple Kudzu Scarf		Pea Green	Imperial Yellow Robe			
	Rouge Red	Coral Terrace			Big Deep Purple	Purple Sea Cloud						Snow White Pagoda	Black Dragon Holds a Splendid Flower
		Taoist Stove Filled with Pills of Immortality			Wang's Family Red		Purple Kudzu Scarf			Yao's Family Yellow		White Jade	
rincess hao Goes eyond he Great Vall	Apple Gorgeous	Big Hu's Red		Purple Smoked Velvet	Senior Scholar's Red					Golden Silk passes through the Top	Yellow with Big Leaves		
							Precious Jade Platform						

*Due to the nature of the printing process, colors may vary slightly.



Yao's Family Yellow.

photo supplied by Cricket Hill

garden fungus, botrytis. But by simply picking off the infected part of the plant, says Furman, the peony should continue to flourish. A fall cleanup of all leaves will go a long way toward preventing this disease.

While both David and Kasha have always been interested in gardening, in general, it was his fascination with "things Chinese" that led to his discovery of the tree peony. Furman, who holds a master's degree in Chinese history from New York University, modestly claims to be a dilettante about Chinese culture and artifacts. "I found that there are many references to peonies in literature, poetry, pictures . . . even fabrics and ceramics," he explained. While the Thomaston couple have only been importing the plants for the past four years, Furman says he has been a passionate grower and collector of Chinese tree peonies for many years. He explains the Chinese cultivate 600 varieties and reveals that his personal collection includes over 100. He offers for sale about 62 varieties.

Furman warns that while the tree peonies take a few years to mature from the time they are planted, once they become established, there is no stopping the blooming plants. "It's not an instant-satisfaction plant, but when they come into their own, it's a breathtaking experience to see them in bloom on a late May morning," Furman said.

In this country, the Japanese tree peony is quite common. In most cases, with a few very notable exceptions, these are the same plants as the Chinese tree peony but with Japanese names. This has happened because the tree peony was brought to Japan from China about 1200 years ago. During the ensuing time, the Japanese have claimed this plant as their own. As a cultural preference, the Japanese have selected only the semi-double varieties for their gardens. As mentioned, the Chinese grow singles as well as semi-doubles, but prefer the fuller doubles in their gardens.

Furman recalls seeing a Japanese semi-double tree peony in a Virginia garden that was about 100 years old, six feet high, six feet in diameter and having more than 300 10-inch blossoms. He describes the experience as one not easily forgotten.

The Furmans moved to their present location from New Haven in 1988, although their garden in Thomaston was actually started some two years earlier, when the property was forest land.

"We used to go up there camping," Furman recalls. In fact, he notes, the layout for their home was actually built around the layout for the peony gardens, and their requirement when purchasing the land was that it have just the right slope facing the proper direction. Their main garden now has sloping terraces facing east to catch the morning sun. Old trees were left in place to provide the preferable dappled shade.

Today, a series of strategically constructed terraces have been built around the grounds of Cricket Hill Garden, which ensures that each plant gets the proper drainage. "They will die if the roots sit in water," the gardener noted.

When asked what his personal favorite variety of the peony is, Furman hesitates not a second. "Oh, I have none. That's like asking who's your favorite child if you have 100 children!"

Where to See Tree Peonies

The semi-double Japanese varieties of tree peonies may be seen in late April and early May at Longwood Gardens; Winterthur Museum, Garden and Library; and the Scott Arboretum, Swarthmore College.

The Chinese tree peonies [of all shapes] bloom at Cricket Hill Garden beginning May 15. Call (203) 283-1042 for specifics.

Catalog Available

A catalog may be obtained from Cricket Hill Garden, 670 Walnut Hill Road, Thomaston, CT 06787 for $2.00.

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Debra A. Aleksinas is an associate business editor with *The Litchfield County Times* in New Milford, Conn., and a backyard gardening enthusiast.

Insure the silent voice of hunger

by Libby J. Goldstein



photo by Jackson Photography

Everyone has their own reasons for gardening. I garden to experiment, to play in the dirt and to hack trees and shrubs. Sometimes it's about esthetics and about the restoration of empty lots like my backyard and our community garden. It's always about sharing gardening chat and information with my neighbors and my friends in cyberspace. But a lot of it is about food: for me, for my friends and neighbors, for people who may not have enough to eat.

You don't hear a lot about hungry people. They don't march. They don't attract the media, nor do all the people who are trying

continued

Gardener and chair of Southwark/Queen Village Community Garden, Yvonne Howard helps to harvest for Philabundance.

to feed them. These are the people that Gaynor Yancey, director of the Greater Philadelphia Food Bank, calls the "silent voice of hunger." Half a million of our neighbors here in the Delaware Valley are poor, and 415,000 of them are hungry too. Government and corporate help have been declining, but there are over 1000 community groups in the Delaware Valley serving meals to hungry people and running emergency food cupboards for people who've just run out of food and the money to buy it. Gaynor estimates that they served 8,000,000 meals in 1994 . . . 43,000 or more meals a day, not counting the food people got from the emergency cupboards and prepared at home.

The numbers would be really incredible if these groups provided more than one meal a day. Most of them don't, but that's not because the need isn't there. The food isn't; even though more and more people are contributing to more and more food drives and volunteering more time to feed their neighbors. Ordinary people including gardeners like you and me don't want their neighbors going hungry (no matter what some politicians may think).

I don't want to waste all this good food

Probably all of us grow more stuff than we can use. Ed Schwartz, a gardener at Benjamin Rush community garden in the Northeast says, "You become a successful gardener; you get more and more stuff." Ed, a 71-year-old grandfather, harvests his plots every Sunday of the gardening season just to take stuff to the International Senior Center at Holy Trinity Bethlehem Presbyterian Church in Logan. He began by visiting a friend who was the director at the Center, and now he's a regular delivery man.

The Center uses the food he brings in to prepare take-home meals for the elders. Ed says that when he's grown too much for his family and neighbors to eat, "It's wonderful to have a place to take it." He really enjoys talking to the people at the Center on delivery days, too. "When I come down, I feel like a huckster. People make requests . . . okra and other plants they remember from when they were kids."

Ed has learned to grow vegetables he's never grown before. He plans his garden with the Center in mind and tries to have vegetables to give them all season long. But his garden is not all work. He's furnished it with recycled chairs, and brings his buddies along to sit out. "It's just like a club."

Share Your Harvest

Do your neighbors and your co-workers flinch when they see you coming with your baskets of extra zucchini and tomatoes? Hey, it's happened to all of us. I remember giving several pounds of snap peas to a formerly famous person. I thought it was a truly terrific gift. (So did the aide he gave them to.) Do you keep saying, "I really must can this stuff" or, "One of these weekends I really will get to freezing"? As the gardening season comes more or less to a close, do you just sort of let the garden and all of its goodies go for weeks on end and then feel guilty, or walk through your community garden and just hate the waste? Lose your guilt. Keep your friends. Give your food to people who don't have enough to eat. All you have to do is call Philabundance at 215-844-3663 (Yes, 3663 does spell food).

Backyard gardeners can sign up for Share the Harvest now. Community gardeners can call whenever they're ready to have their extra goodies picked up. Listen to the silent voice of hunger and answer. It's a good thing.

L. G.



Gus Meyer is another Benjamin Rush gardener with a regular route. Two or three times a week 85-year-old Gus drives downtown to St. Mary's Convent, which provides housing for elderly women or to St. Vincent's soup kitchen in Kensington with stuff from his garden. Gus lives alone so he can't possibly eat all the food he grows on his two 30-ft. by 30-ft. plots. Gardening, he says, "is therapy for me." Gus gives food to his neighbors, too. But he started thinking about the food he grows as a way of helping people while visiting a friend who was living at St. Mary's. Now he does it every week.

Mattie Robbins, who began the Grays Ferry garden in 1977 and was its coordinator for almost two decades, started as a food person. When she got the garden going, she worked for the Community Food and Nutrition Program. In those days, her gardeners used to take their extra food to the Southwest Community Service Office where Mattie worked. They had both an emergency food cupboard and a soup kitchen. The office is closed now, but Mattie who grows the biggest and most beautiful cabbages in Philadelphia still takes them to Mercy-Douglass Center. The rest of the gardeners hand their surplus food over the garden fence to the neighbors who stop by.

Late last September, Yvonne Howard, our chair, and I noticed that while most of the plots at Southwark/Queen Village Garden were still pretty neat, every one of them had food that was practically ready to rot. So much waste! We decided to pick some for people who needed it more than the gardeners who hadn't harvested in a while.

We called Philabundance, who have been distributing fresh and fresh-cooked food to a whole network of community groups and shelters that have been feeding hungry and homeless people since 1984. We made an appointment for their truck to meet us at the garden one evening. We only picked for about an hour . . . not long for 65 plots. We certainly didn't strip anyone's plot. But by the time we had loaded the truck, we had 100 pounds of fresh food (about 1.5 pounds per plot) for James Butler, the driver, to deliver to neighborhood soup kitchens, shelters and so forth.

In 1993, we had tried having food collections at one or two of our monthly meetings. It wasn't massively successful, especially since some of our gardeners tend to skip meetings . . . regularly. We solved our organizational problem by doing it ourselves. This year, we'll have to get our gardeners thinking about their extra stuff as real food for actual hungry folk early in the season. Then we may be as successful with regular food drives as the people at Benjamin Rush.

At Benjamin Rush, they hold an annual August Food Drive that works. Kay Grosik, their coordinator, sends postcards to each of her 210 gardeners to remind them about the Food Drive. She's got them so well organized that nearly everyone participates. Last summer they collected 800-900 pounds of food (over 2.5 pounds from each of their 308 plots). A lot of the gardeners give Kay their surplus during the rest of the

photos by Jackson Photography





Top: The Southwark/Queen Village Community Garden in August. Gardeners harvested what they wanted; the surplus was gathered to share through Philabundance with needy groups. Other community gardeners also shared some of their harvests with food kitchens at senior centers, orphanages, and neighbors. **Bottom**: Author Libby Goldstein raids a plot for Philabundance that had good food going to waste.

But 1,000 folk could contribute nine tons of food a season.

season, too. John Grosik takes it all to the Salvation Army, where they've gotten to know him very well, as well as to St. Vincent's Orphanage in Frankford. A lot of people at Kay's garden know that what they grow can really help hungry people and act on it.

And they know they're about food at the Catholic Worker Garden at 4th & Jefferson. The people who live and work at Catholic Worker House have three of the plots in this 25-plot community garden according to Jeff Monojack. Every dinner at Catholic Worker House is a harvest dinner, and anyone in the neighborhood who needs a meal is welcome.

In the mid-'80s, Food and Energy Systems had a program in West Kensington that introduced over 100 community gardens and their gardeners to the food cupboards, senior centers and soup kitchens in the neighborhood. When they all got to know one another, the gardeners realized that they could really help. In the third year of the project the gardeners donated over a ton of fresh produce to help feed hungry people in their neighborhood. Unfortunately, when the project ended, none of the groups who offer technical assistance to community gardens was interested in picking it up. Most of the gardeners just stopped donating their food after a while. Maybe this year more community gardens will find ways for our full plots to fill empty plates.

Most of us give our garden goodies away to family and friends . . . for a while. And then we just get tired, run away from the August heat or, wrapped up in all the possibilities of a new fall, let good food go to waste. But now there's a program, "Share the Harvest," designed to give backyard gardeners a fairly easy way of turning all those extra veggies into real food for people in real need.

S.O.S. (Save Our Strength)

In 1992, Wendy Born who was running the Philadelphia office of Save Our Strength, the national organization of restaurateurs and chefs who sponsor annual benefits for local anti-hunger programs, got together with Jeff Ball, the garden writer and garden host of NBC's Today Show, to take advantage of all the extra food gardeners produce. Mostly they collected food at Reading Terminal Market on Saturdays, and Philabundance picked it up when they picked up the Market's leftovers. Good idea, but not terribly convenient for most gardeners.

Last year, Scott Schaeffer, director of Philabundance, Jeff and some others set up the first pilot program for Share the Harvest in Delaware County and on the Main Line. Two of Frank's Nursery and Crafts, Bryn Mawr Seed and Feed Co. and Bethany Baptist Church in Chester agreed to let gardeners drop off their stuff on Saturday mornings from July through September. Philabundance would pick it up and deliver it to soup kitchens, shelters and other organizations that serve meals to hungry people. Several Delaware County Master Gardeners volunteered to be at the garden centers to take in the food, answer gardening questions and get the food ready for the Philabundance truck.

In the spring, Jeff and Scott did a presentation on gardening and on the project at Border's Book Shop in Rosemont to recruit both gardeners and volunteers to take in the food at the garden centers. Jeff also made public service announcements for television to let more people know about the project. Gardeners who registered for the program got some free seeds and a copy of Penn State's "Grow Your Own Vegetables." The idea was that they would plant a special row of food for the project, but most of them actually just brought in surplus goodies from their regular plantings. One hundred and ten people signed up for Share the Harvest. Ultimately, they contributed a ton of food (about 18 pounds per garden) to the project.

Jeff and Scott would like to get at least 500 to 1,000 of the thousands of backyard gardeners in the Delaware Valley into the program. Eighteen pounds of food isn't a huge contribution for a single family garden. (I picked more than that from my tiny potato patch last year.) But 1,000 folk could contribute nine tons of food a season.

Naturally, as a community gardener, I'd like to see us involved too. If half of the over 500 community vegetable gardens in the Delaware Valley gave 100 pounds each, that would be another twelve and a half tons of fresh food for our hungry neighbors.

Jeff, who never ever thinks small, hopes to see folk all around the country providing a million pounds of food a year to "Share the Harvest" kinds of programs in a few years. (The Garden Writers Association of America are promoting the "Plant a Row" programs all over North America.) The Philadelphia area has so many gardeners and such a super distribution network (Greater Philadelphia Food Bank, Philabundance and Project Share) already in place, that it's an excellent place for a pilot program.



photo by Jackson Photography

Freeze-dry surplus food

Of course, a million pounds of fresh food might be more than many food programs could handle. Jeff has a solution in mind, however. He wants to freeze-dry the extra vegetables. Freeze-drying, after all, is a lot safer than amateur canning, and freeze-dried food can be stored right on the shelf for six months. It would be a lot cheaper and easier to deal with than frozen food.

Since freeze-dried food can be stocked so easily, it could be given to food banks



Philabundance driver James Butler and Yvonne Howard load the truck for distribution.

and neighborhood emergency food cupboards as well as to groups that serve meals directly. And freeze-dried veggies can easily be ground up and reconstituted as baby food. Baby food (and formula) are always in short supply among the hunger fighters. Baby food and formula manufacturers are so efficient these days that they don't have much surplus product to donate. The Greater Philadelphia Food Bank even has a special baby formula drive for individual contributors every year to get what their member agencies need.

This year, Scott and Jeff are expecting to expand the number of pick-up sites from 5 to 10, and maybe more than double the number of participants. Jeff wants to get local gardeners and garden writers to visit garden centers, book stores and community meetings with Scott of Philabundance to promote the program.

Jeff is also planning to give the participants tip sheets based on his various gardening books as a way of repaying them for their generosity. He'll probably be doing sheets about cabbage, broccoli, cauliflower, snap peas, beans, zucchini, tomatoes, peppers, carrots, onions and collards. They're all vegetables that will hold most of their quality and their vitamins while they're waiting for the Philabundance truck to come to the pick-up site. Of course, if community gardeners were to pick just before the truck came the way Yvonne and I did, we could add stuff like corn and lettuce and spinach. They'd go right from the garden into a refrigerated truck, so they'd never have time to lose their flavor or turn into compost.

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Libby J. Goldstein, a South Philadelphia gardener and a director of the Greater Philadelphia Food Bank, has been a food activist and garden writer for almost 20 years.



hummertime

by Helen Tower Brunet

Most gardeners look forward to May when the garden bursts with bloom. I, on the other hand, look forward to May as the time when our bird feeders are finally put away for the summer, every last one of them. I've never actually counted them, but I can tell you that in winter the view of garden or woods from any window is all but obscured by at least one bird feeder.

continued



What I swore I would never countenance are bird feeders in summer, specifically those obscene red hummingbird feeders that look like hospital IV bottles. It was once suggested to me that we suspend one from the awning on the deck, but I put my foot down on that idea. I don't even like red flowers on the deck.

illustration by Katy Winters

For nine months of the year, my husband, Stu, who is reasonable in most other ways, fills and refills countless bird feeders — suet baskets, Lucite tubes with perches for little birds, wooden trays of sunflower seed for big birds and thistle dispensers. We even have a heating coil to keep the birdbath water from freezing in winter.

At the moment in May when he has finally dismantled all of the feeders and begun raking up the sunflower hulls from under the rhododendrons, I know it is safe to sweep up the cache of sunflower seeds the chipmunk stores behind the table in the garage.

Every year when I have finished cleaning and firmly anchored the top on the metal garbage can that holds the leftover sunflower seed, I ponder yet again the rodent food chain supported by the presence of bird seed here. It begins with the squirrels, then the chipmunk in the garage, and finally a tribe of mice who steal the seed from the chipmunk and smuggle it up to the attic. I can't begin to guess where they are stockpiling this year . . . in the wool blankets? or the baby clothes? It doesn't bear thinking about.

After I have removed the rancid package of suet from the back of the basement refrigerator and buried it deep in the garbage, I can finally enjoy the garden without looking at it through, around, or over bird feeders.

At times I harbor dark thoughts about the necessity of bird feeders. I don't see how a bird could starve at our house, even if we didn't have any feeders. We live at the edge of a woodland area. Birds have good cover, food from thickets of wild grape and bittersweet, and even a little woodland stream for bathing. Around the yard we have planted pyracantha, dogwood, hollies, crabapples and viburnums. When the birds' favorite tree for perching — an old black haw *(Viburnum prunifolium)* — died, we replaced it with a good size *Cornus kousa* to give them berries and numerous twigs to use as perches. We planted the replacement tree right at the axis of three major feeders outside the study window. Against expert advice, we have even encouraged several stands of *Rosa multiflora* so that the birds will have the pips to eat in the late fall.

So in the interest of family harmony, I tolerate bird feeders in winter. What I swore I would never countenance are bird feeders in summer, specifically those obscene red hummingbird feeders that look like hospital IV bottles. It was once suggested to me that we suspend one from the awning on the deck, but I put my foot down on that idea. I don't even like red flowers on the deck. Red flowers are fine in the garden and in the plant room, but on the deck I prefer flowers in white, yellow or blue, with cool green foliage. After years of experimenting, I have settled on tubs of 'Stella d'Oro' daylilies that bloom in a rich butter yellow most of the summer, pots of *Evolvulus glomeratus* (Canadian morning glory), three Calamondin orange trees from the plant room, which adjoins the deck, plus a lone blue *Streptocarpus* on a table under the awning.

Last summer, one hot day in mid-June, the yearly bird feeder take-down had been completed and I had almost finished moving the plants from the plant room to their summer quarters under the deck. As usual, I had left in place the big red bougainvillea that swirls around the skylight filling it with bright red flowers and the night blooming cereus that is spread-eagled all over the plant room rafters.

By noon that day, I had vacuumed half way around the room, sucking up dead leaves and flowers, when a movement in the corner caught my eye. A mouse, I thought. No doubt one of the attic brigade, moving outside for summer. I turned off the vacuum and moved closer, carefully. Insects and even snakes don't bother me, but a mouse at large makes me want to stand on a chair and clutch my skirts like the cliched ladies in the cartoons. Fortunately, this mouse was in the corner a few feet from the open door to the deck. A little nudge would send it scurrying outside. I gave it a gentle tap with the end of the now silent vacuum cleaner but it didn't budge. I put on my glasses and moved in for a closer look.

What I found was not a mouse at all, but a small bird, making a poor job of hiding itself behind a tiny pair of iridescent green wings. When it turned its head I recognized the needle-like beak — it had to be a hummingbird.

I sat down to think what to do. I was alone, of course. Over many years of family life, I have learned that no emergency ever occurs when Stu is home. Pipes burst, legs break and cars have flats when I am home alone. It was not surprising that I, who had never willingly touched a living bird in my life, had to figure out how to give one CPR.

I looked at the disheveled little mound and wondered absently how such a small creature could fly such great distances, nonstop. He must have flown in through the deck door, attracted by the red bougainvillea blossoms and gotten trapped in the skylight. The thought of him beating his little wings against the Plexiglas skylight made me shudder. Now he was lying exhausted, perhaps near death, only a few feet from the open door. I was sure he needed nectar to refuel his body. But with no hummingbird feeder, I had no idea how to provide it.



illustration by Katy Winters

It was not surprising that I, who had never willingly touched a living bird in my life, had to figure out how to give one CPR.

Just then the bird moved. He took a few wobbly steps, rearranged his wings, then hopped up on the edge of the wicker wastebasket. I was stunned. He looked at me quite calmly, with little wisps of spider web on his beak. What a plucky little fellow. Very appealing. I was transfixed. Before I could stop myself, I reached out to touch him. He let me run my finger along his back and stroke an iridescent wing. His feathers were smooth and cool. The blue-green coloring had a metallic hue that glinted in the sunlight. Growing bolder, I cautiously pulled the cobwebs from his beak. I have no idea how long the enchanted moment lasted. At some point I realized that I could simply pick up the wastebasket and carry him out to the deck. I expected him to fly away as soon as we were outside, but he just sat quietly as I set the wastebasket down next to a blue flowered *Streptocarpus.* I remember worrying about whether a blue flower would fuel him as well as a red one would, and wishing I had a bright red fuchsia in full bloom. But he was gone a moment later, and I never saw whether he had probed the *Streptocarpus* for nectar or not.

When I caught my breath, I looked him up in a bird book. He was a ruby-throated hummingbird, *Archilochus colubris,* native to Eastern North America. It migrates thousands of miles to warm climates in winter, sometimes as far as Central America.

In less than an hour, I had raced to the garden center, bought the most hideous bright red feeder I could find and several months' supply of nectar. By the time Stu returned, I had suspended it from the awning and was casually reading the paper. To his credit, he never said a word.

All last summer we watched the hummingbirds from the shade of the awning. Sometimes it was the sound of whirring wings that announced one's arrival, but more often the flicker of movement caught our attention, as a hummingbird dropped down to refuel at the feeder. It was fascinating to watch the tiny bird insert its beak in the feeder tube, hold itself on course with a blur of wings, then dart in reverse before peeling away like a miniature fighter plane.

Later in the summer, when we changed to a multi-tubed feeder, we found that some hummers like to dip into several tubes in succession. Sometimes the hummer would make tiny sounds, a combination of a peep and a chirp. We could tell some of the male hummingbirds apart by their red throats. On some it was as narrow as a red necktie, on others more like a John Wayne bandanna. At first the females looked alike in their drab brown and gray, but we began to notice some variation with them as well, especially one who looked very gray, like a matriarch. Sometimes we witnessed a split-second dog fight as one bird divebombed another at the feeder.

By the end of summer, the hummers had us trained. We found that it really didn't matter how close we were to the feeder as long as we sat perfectly still. Nor did we need to be under the awning. We could go right on talking as they darted in to feed. They usually fed off and on throughout the day and quite heavily just before dusk.

We were told that it is important to stop feeding hummingbirds in September so as not to encourage them to stay north too late in the fall and possibly get caught by a cold snap. But as usual they seem to know a lot more than we did. By Labor Day they had stopped feeding. I hated to take the feeder down, knowing it would be so many months before our little air show would resume.

This summer, I may try two feeders. And I have planted a tub with a bright orange/red-flowered honeysuckle, *Lonicera* 'Dropmore Scarlet.' I'll put it outside the door to the plant room. Just in case of an emergency.

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Helen Tower Brunet is a freelance writer who lives in Mendham, New Jersey.



photo by Thea Steinmetz



The gift of hollyhock *(Alcea rosea)* planted at the southwest corner of the house, in poor soil, was cut back in midsummer and came back even better. This is how it looked on November 1.

Planting a friendship garden

Twelve friends and their gifts of plants help transform a barren garden.

by Thea Steinmetz

My friend Jolie Bishop called to ask if I'd be home at 11 o'clock next Tuesday morning. "A few of us would like to come over to see your new house."

Jolie said some of my longtime gardening chums would come along, mostly those from the Western Reserve Unit of the Herb Society of America; she politely turned down my offer to fix lunch.

My husband Art and I had built our first home 30 years ago for a growing family. The garden, never a static entity, evolved, matured and got better over that long time period. Every spring my husband worried that I'd ask him to dig another bed. The year after we finally put the trellised white arch in place, as an entrance to our private little world, we sold the house.

continued



The new owners were enchanted with the garden and asked us not to remove plants. While I never planned to leave holes on the property, I had hoped to take a few of my favorite and hard-to-come-by specimens along.

Timing is everything, especially when it comes to gardening. A move at the end of October to construction-scarred land, is a nightmare. I could not even heal anything in the ground to overwinter in safety. The landscaper hired by the developer promised to get to us "very soon." A shallow promise.

Observing what had been done around the neighborhood, I knew it needed a great deal more than scratching the surface and throwing in a few grass seeds. The topsoil had been scraped and natural vegetation removed for the new construction.

The area we had selected to live in was called "The Woods"; ironically the builder removed the woods before beginning to build. I begged, pleaded and threatened, and I managed to save a few mature trees.

The year after we finally put the trellised white arch in place, as an entrance to our private little world, we sold the house.

In desperation I called City Hall and ordered 10 yards of leaf humus as a start to amend the soil. Bales of Canadian peat moss, along with the leaf humus, were finally tilled into the rock-hard clay soil. By then it was the end of November and much too late to do any serious planting, except tulips and daffodils. I absolutely had to have spring color in my new world.

By spring my frustration was out of control. When family and friends asked what I wanted for next Christmas, the answer was unwavering: a garden.

The watering system was still not installed. What should have been a budding lawn was a sea of mud. To no one's surprise, the crew was fired by the builder and a new landscaper was brought in.

We asked for a few more shrubs than had been specified in the contract; the quote was outrageous. "If you want it done right, do it yourself" seemed good advice to me.

At the time Jolie Bishop brought the gang to see my house, the house was fine. The garden was not. The small strip leading to the front door, ablaze with blooming spring colors, looked incongruous amidst the disastrous surroundings.

My good friend had planned a surprise plant and planting party. Twelve beautiful,

photos by Thea Steinmetz



Avoiding heavy construction equipment all around the house, it became important to establish our own safe borders. Friends helped plant this entrance garden by the driveway with blue ageratum, silver dusty miller and pink geraniums. A clematis climbs up the light post. Amid all the chaos, it bloomed the first year.



Against a blank wall for long-lasting flower power the perennial verbena *(Verbena bonariensis)* with delicate lavender flowers, gets my vote for longevity.

smiling people arrived, all in a party mood and loaded down with herbs and perennials, with food and wine. It was a sharing love fest that yielded an attractive and pleasing first-year garden.

I asked everyone to record their gift, with the botanical name, in my gardening book. With such largesse, I knew I would not remember the individual offerings.

For years I had shared the abundant seeds of sweet cicely *(Myrrhis odorata)* and now the offspring of my parent plants came back to me. The prefix 'sweet' on the common name gives a hint of the plant's use. I use the leaves in cooking and when preparing rhubarb, I reduce the amount of sugar called for. The slight anise-licorice taste adds a delightful undertone to tea breads.

A tiny pot was labeled winter savory. Familiar with the herb savory, this cultivar



Cherry tomatoes, sweet 100, came to the party in tiny pots. By midsummer the plants were climbing over the sun dial and reaching up to the kitchen window. The cosmos climbed even higher, to seven feet. This spot gets sun all day long.

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pygmy winter savory *(Satureja montana* 'Nana') was a new discovery for me. Not depending on a large area, it does well in partial shade. The white flowers appear late in the season and add a charming note to a rocky setting.

Self-seeding chervil *(Anthriscus cerefolium),* always a must in my herb garden, was a welcome addition. Even such common herbs as chives *(Allium schoenoprasum)* and garlic chives *(Allium tuberosum)* were also welcome. They provided important harvests for the kitchen.

The Victorian rosemary *(Westringia rosmariniformis)* lived up to its suggested three-foot height. Although it lacks the strong fragrance or the culinary value we expect from rosemary, it is a delightful plant to watch as it grows. This tender perennial, with a compact shrub-like habit, makes a wonderful houseplant.

There are numerous sages in commerce. Some find their way to the kitchen while others are strictly ornamental.

I have a long-standing familiarity with the commonly used culinary sage *(Salvia officinalis)* and clary sage *(S. sclarea),* going back to my grandmother's garden in southern Germany. The trio of sages, brought by my friends — golden sage *(S. aurea),* purple sage *(S. officinalis* 'Purpurascens') and the 'Tricolor' variegated green, white and purple-leafed cultivars — were most welcome. They are standbys for all of us who enjoy making a tussie mussie.

Over a dozen sages vied for attention by the end of the growing season. The fruit-scented sages *(Salvia spp.)* are the newcomers to my herb garden. Four varieties were brought to the party, with the 'Discolor' developing into a six-foot-plus monster plant. By the second week in November the top blossoms had not as yet unfurled.

A perennial that should always be relegated to the rear of the garden is the rue plant *(Ruta graveolens).* Avoid any contact on bare skin on days with high humidity. After a horrible experience with dermatitis, which the dermatologist could not diagnose, I stayed away from this plant. Now it came to the party as a gift.

The leaf is especially attractive and the silvery foliage is a subtle addition to a landscape. I will have to wait for another year before the plant will show its attractive, albeit small, yellow flowers.

A friend and well-seasoned gardener at age 83, Robert Stark, also wanted to contribute from his own spectacular landscape. He is in the habit of sharing lustily growing garden volunteers with anyone showing an interest. His donation to my fledgling garden included several small starts of the perennial verbena *(Verbena bonariensis),* which he insisted I must have.

The rather sparse foliage on this verbena variety seems out of character with the long-lasting flowers. The small lavender blossoms form clusters that last for months on the tall, erect stems. Listed as hardy in areas south of us (Westlake, Ohio), it thrives in our Zone 5 climate.

This verbena cultivar belongs with the group of flowers favored for a strong architectural background. It plays well against an otherwise uninteresting building wall.

One clever friend brought seeds. This was a gift that provided special joy for the whole summer. The nasturtiums *(Tropaeolum majus)* supplied not only abundant color but also a lot of good eating.

The packet of cosmos *(Cosmos bipinnatus* 'Sensation Mixed') gave glorious color even with autumn around the bend.

Pot marigold *(Calendula officinalis)* one of the easiest seeds to propagate, was sprinkled next to the tomatoes for its companion planting value. As a cut flower, the gold and orange hues bring sunshine to a dark corner in the house.

It was difficult to leave a garden that had flourished along with our family. Every spring the renewed cycle of the seasons had been part of the fabric of our life. The time had come to move on. A chance to establish a new garden was not only a challenge, but also a new adventure.

Remarks from friends that had shared their plants and who came back to see how the garden matured in one short season, were music to my ears. "This does not look like a first-year garden" was the comment I heard most often.

Grandma was right — a shared garden grows better.

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Thea Steinmetz is German born and has inherited her love for herbs from her grandmother. "Garden Gadabout," her weekly column about how and why people garden, appears in five newspapers. Frequent lectures and appearances on television have led to a video "Fast, Fabulous and Frugal Entertaining."

A Garden for the Challenged

Carousel House's Garden Offers a Special Place for Special People

by Dorothy Noble



The Carousel House gazebo, designed and constructed by Bill Coppens (shown here), is a favorite gathering place for his plant classes. Bill, a building engineer for Carousel House, volunteers his time with his wife Mary to assist the special gardeners in the 5,000-square-ft. garden.

The bus rolls into Belmont Avenue, then halts at N. Concourse Drive. Here, the "Friday" group of a dozen challenged adults eagerly disembarks at Carousel House. On this crisp, bright October day they've come to harvest their fall treasures.

Bill Coppens, outfitted with shovels, bags and trowels, guides them to the garden. Enthusiastically, the members start to gather their bounty — beets, cabbages, collard greens, endive, kale, kohlrabi, mustard greens, peas, radishes, red chard, turnips, and other fall vegetables — plants they've tended on several hot summer Fridays.

Eddie Nixon yells, "Wow, look at this!" as he unearths a big, perfectly shaped, deep red beet. Jim Gallagher shows off the towering 6-ft. okra that he planted from seeds only a quarter-inch round. Working energetically, the whole group delights in the tomatoes — obligingly still productive in this unseasonably warm fall. The thrill of their harvests resonates beyond garden bounds. As the work session ends, Coppens helps everyone to pack their collection of vegetables to share with their families.

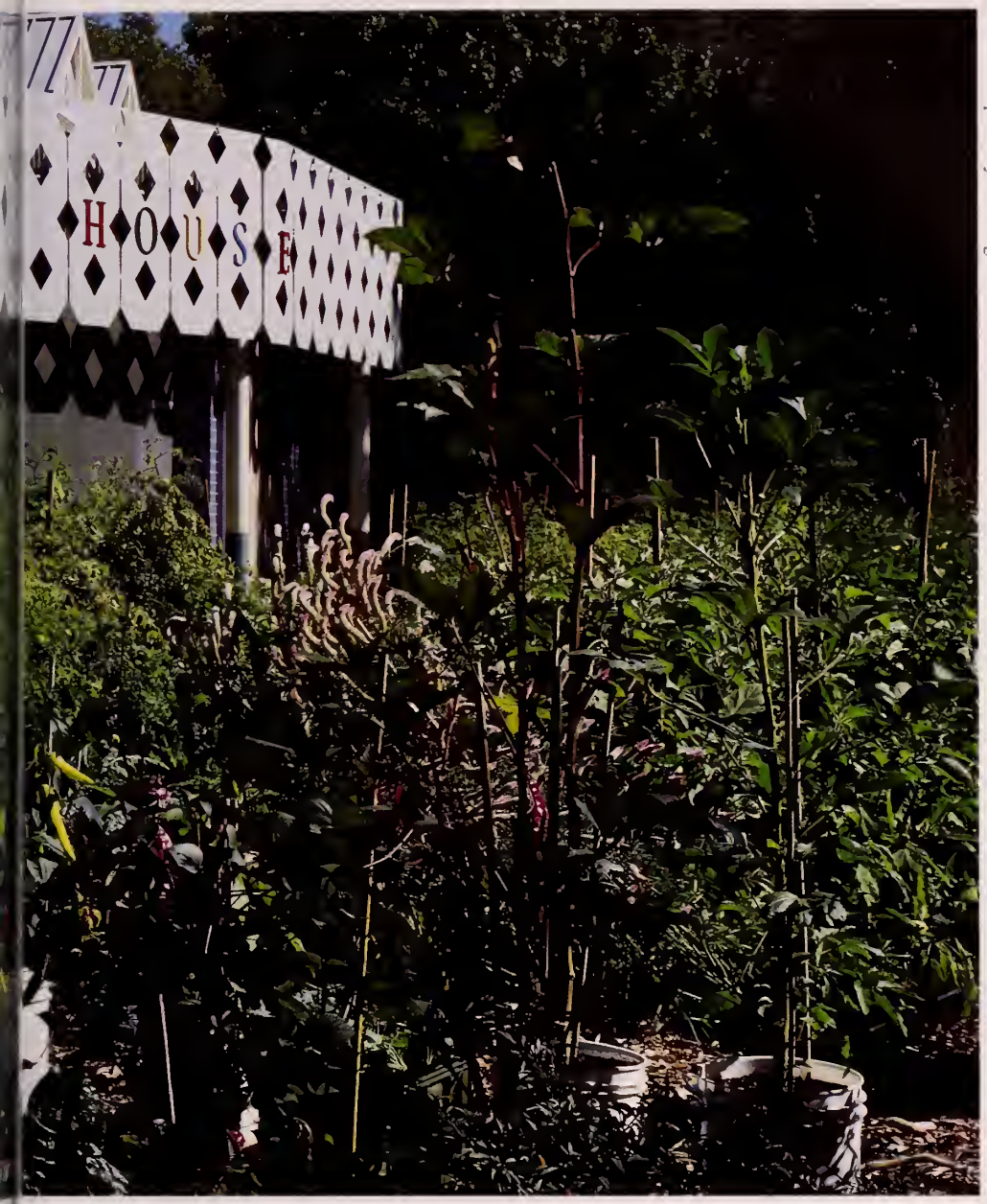


photo by Bob Ferguson

With the waning sunshine, they disband. Some go on to enjoy Carousel House's recreation facilities. There one young man can be seen working out on the body-building equipment; an athletic-looking woman opts for the supervised indoor swimming pool. A family member stops in to pick up Eddie, and off they zoom on a motorcycle.

On Mondays through Saturdays, Carousel House programs help a group of physically or mentally disabled adults. And during the summer, two three-week camp sessions provide hands-on learning opportunities for more than 120 disabled boys and girls, aged 5 to 21.

Stan Richardson says his son Keith, who attends Tuesdays and Thursdays, is "tickled to death to dig, turn the ground, the whole bit." Richardson asserts that Bill Coppens "could grow anything. Without him many city kids would still believe only grocery stores provide food."

A joyous effort

"Kids are responsive," says Coppens, whose zeal to get youngsters involved motivates his joyful garden. Both Coppens and his wife Mary volunteer their time and expertise.

Bill, Carousel House's building engineer, visualized a few years ago a garden at the site. "It was a nice area, and we had the capability to create a pleasurable challenge for our disabled clientele." Bill turned his idea into reality: a 5,000-square-foot show-piece garden that complements Carousel House's recreational and educational services.

For those without vision, the garden structure offers relaxation and security. "To feel at home in an outdoor setting is psychologically priceless," Peggy Garrett explains.

A seasoned gardener, Bill has accumulated a satchel full of Pennsylvania Horticultural Society Harvest Show blue ribbons.

When he competed in 1984 and 1985, his cut flower, vegetable, and container-grown entries earned 13 blue ribbons the first year and 19 the second. In both years he was awarded the Gardener's Sweepstakes Certificate, given to the individual who amassed the greatest number of blue ribbons in two or more horticultural sections of the Show.

Mary Coppens is a nurse at Thomas Jefferson Hospital. Mary starts seeds and instructs participants when her time permits. Her professional sensitivity alerts her to the needs of Carousel House's clients. For example, an eggplant variety with spines that might prick fingers of the frail or visually impaired doesn't have a chance with her.

Together, the Coppens have helped to establish a vibrant garden, alive with color, fragrance and texture, created to be used and enjoyed by special people.

About 200 disabled persons took part last year. Encompassing a wide range of physical and mental disabilities, the participant may be a victim of birth trauma, stroke, multiple sclerosis, diabetes, or Down's syndrome. The person could be an amputee, or be visually impaired. The disability could have occurred at birth or during an accident later in life.

Except for the summer day camp, the gardening is informal and unstructured. "Everyone can do something worthwhile," says Bill, whose encouragement does won-



Looking down one path, mulched vegetable and flower beds mix with potted specimens to create a variety of color and form. Wood chips neaten, reduce maintenance, and muffle sound.

photos by Bob Ferguson

ders for the special gardeners' self-esteem. Children's small hands excel at thinning just-sprouted root vegetables, older youths wheelbarrow wood chips, and experienced seniors spot flowers that need deadheading.

And when the PHS-sponsored City Gardens Contest awards were presented at a special ceremony, many from Carousel House were among the nearly 500 people on hand to cheer. Carousel House won the top prize in the first-time category, Gardener's Special Needs garden.

Rich in history, compost

Carousel House stands on the area in Fairmount Park that hosted the Centennial of the United States. This site may be rich in history, but building construction, fill, traffic, and soil compaction have left it a poor garden site. After a week of toiling futilely with a top-of-the-line cultivator, Bill abandoned that drudgery and turned to the city's compost. Now compost literally is the soil — 12 inches of it — in 18 raised beds. And it's replenished every year. Fertility gets a boost with Peters 20-20-20.

Poor drainage prompted the raised beds. Most are neatly retained by redwood; no pressure-treated ties will do in this setting. The 26-ft.-long beds are limited to a 3- to 4-ft. width to allow easy access.

Pest poor

Organic methods keep problem pests at bay. A Japanese beetle trap lures that nuisance from a distance of 100 feet. The biological control, Bt, controls cabbage worms.

Bill feels that using a sufficient number and variety of certain herbs, flowers, and vegetables minimizes insect damage. Summer savory discourages the Mexican bean beetle. A multitude of marigolds might deter bugs by their scent. Hot peppers seem to diminish whiteflies and some aphids. Onions and garlic repel some other insects.

Bright nasturtiums scattered throughout served as sacrificial plants; their penetrating odor attracts destructive insects away from an adjacent vegetable crop.

Companion plants brighten the beds as well as benefitting each other. Beans dwell easily with beets, while parsley polishes the pea patch.

Last season, zucchini survived the squash vine borer, but a crookneck squash didn't make it. Then there were cucumber beetles, but few other problems.

Bill's three- to five-year crop rotation practice should help keep future pest populations low.



Penn State urban garden advisor H.R. Draper shows gardeners how to harvest a ready-to-eat broccoli.

Participants at Carousel House

Carousel House provides educational, recreational, and social services to persons with disabilities throughout the City of Philadelphia. It is the first of its kind in the United States, sponsored and operated solely by a municipality. Participants include mentally and physically disabled children, youth, and adults; nursing home patients; and visually impaired and blind adults.

Director Stuart Greenberg invites interested people to volunteer.

Currently, Carousel House hosts the following organizations:

- Allegheny Valley Schools
- C.A.R.I.E.
- Children's Rehabilitation Hospital
- Easter Seals Society
- Juvenile Diabetes Foundation
- Kardon Institute of Music
- Liberty Resources
- Magee Rolling Rebels (Quad Rugby)
- Mayor's Commission on People with Disabilities
- Moss Rehabilitation Hospital
- Our Lady of Confidence School
- Philadelphia Corporation for the Aging
- Philadelphia Rowing Program for the Physically Disabled
- Philadelphia Special Olympics
- Philadelphia Spokesmen (Wheelchair Basketball)
- School District of Philadelphia
- Spinal Bifida Association of the Delaware Valley
- St. Katherine's School

For information about Carousel House, call 215-685-0160.

Containers add versatility

True to Philadelphia's reputation as a city of connoisseurs, the resident rodents spurn plain lettuce, but riddle the radicchio. Bill foils the rats by simply enclosing their favorite food plants in screened cages. Once the cages are built, this job's a snap with container plants.

One glance illustrates the Coppens' mastery over container gardening. There must be 200 containers: terra-cotta planters, plastic buckets, ordinary clay pots, crates, baskets, barrels, hanging baskets — just about anything that can hold a soilless mix. Rearrangement for visual effect, or relocation to catch the sun, for example, becomes easily managed with containers.

Careful about adequate drainage, Bill cautions against using plastic bags as container liners, "They promote disease." He has perfected his 'crop crate' system, using plastic storage bins and placing fiberglass, or preferably aluminum, screening on the bottom and sides. For a five-gallon bucket, he drills 35 holes in the bottom, 3/8-inch in diameter. Laundry baskets require both bottom holes and screening on the sides. (For details see Coppens' "Concrete Gardening" article in September 1987 *Green Scene.)*

Again this past year the Coppens lugged lots of the containers to the PHS Harvest Show. And they won the top award, the Certificate of Excellence, for their educational exhibit: "Carousel House Celebrates a Harvest for Their Challenged Youth." In addition, as they have for a number of years, the Coppens shared their container-gardening secrets at their popular Harvest Show lecture.

A learning experience

Bill ingeniously adapts Carousel House's facilities. The constant 85°F in the boiler room proves desirable to start seeds if watering is closely monitored. The temperature and humidity beside the indoor pool ensures an ideal atmosphere for very tender plants during winter.

As a Penn State Urban Gardening* demonstration garden, new techniques are part of the picture. This past year, hydrophilic polymers, used in combination with DeWitt Sunbelt fabric, dramatically reduced the need for water. Bill notes that the consequent increased plant vigor meant reduced disease and insect infestation. The performance of the polymers in containers

*For information on the Penn State Urban Gardening Program or polymers, contact Urban Garden advisor H.R. Draper, III, at 215-560-4167.

photo by Bob Ferguson



Hard at work, this energetic group sinks semi-tender potted herbs into the compost to overwinter.

impressed Penn State urban garden advisor H.R. Draper, III. Eggplants, peppers, and tomatoes in particular showed strong, healthy growth. Polymers offer great possibilities for potted plants on a rooftop, for example. Draper says, "They could be exposed to direct sun and wind and still thrive when watered every two or three days rather than once or even twice daily."

The educational value of the garden provides surprises. Mary Coppens recalls asking a youth to pick the red tomatoes. He returned with *all* the tomatoes — green, red, and turning. He was not color blind; he simply had never learned the word association. He knows it now, and also knows that red-ripe tomatoes taste better than others.

An appreciated garden

"Is this my son?" marvels Henrietta Murray at Loren's enthusiasm when he exclaims, "I did this!" pointing to the vegetables in his lunch, vegetables that he carefully tended in the garden. Murray says that her son's Tuesday group not only enjoys garden tasks but when they see results, they delight in having done something productive. In fact, on Saturdays Loren Murray assists younger participants.

Peggy Garrett, blind since her mid-teens and herself a gardener, cherishes the freedom and uniqueness of a garden setting. For those without vision, the garden structure offers relaxation and security. "To feel at home in an outdoor setting is psychologically priceless," she explains. A skills training specialist with Liberty Resources, she plans to bring blind and visually impaired persons into Carousel House regularly this coming year.

Penn State's urban garden advisor Draper, who has had extensive experience in horticultural therapy, says, "So far the garden has been an exciting success with the population we've been able to reach. And with the information on techniques we've accumulated, Carousel House should evolve into a garden with exceptional appeal for the horticultural needs of more of Philadelphia's disabled."

Future attractions

This coming growing season, Carousel House plans both a larger garden and a greater number of participants. Just as important, structural changes to accommodate an even wider range of physical challenges are anticipated.

Widened paths will facilitate wheelchair traffic. Braille labels will be added, and the water garden will be enhanced with movement.

Grant proposals are being written to obtain funding for certain improvements. Items sought include plant benches with space underneath for people who need to be seated while working with plants. Also envisioned is an automatic watering system to free time for educational activities.

The Coppens' efforts at Carousel House have heartened many disabled people who otherwise would not have been exposed to a garden. What a wonderful way to enrich the lives of others.

•

Writer/researcher Dorothy Noble experiments with specialty vegetables, teaches cooking, and is a research cooperator with Penn State University, Rock Springs, Pa.

Bitten and Smitten by the Butterfly Bug

by Linda J. Young



photo by Michael E. Riska

A group of Monarch butterflies.

Bring on the masses of color and action; I'm ready for summer! My garden is planted (mostly in my mind) and binoculars are within grabbing distance of my kitchen window. I can't wait for those sultry, lazy days for one of my favorite sports — sitting on the deck beneath the umbrella and catching a Disney-type scene in the magnified lenses of my binoculars. What am I focusing on? The incredible, kaleidoscopic combination of butterflies and flowers. At a glance with the naked eye, I see pleasant activity. With the binoculars, I become mesmerized with the textures of wings and petals, sunlight patterns and movement.

This year, my sport kicks into high gear as I use Dr. Elton Woodbury's new field guide *Butterflies of Delmarva* to identify species in various stages: caterpillar, chrysalis (pupa) and adult. Short descriptions and lots of photographs of species in different stages ensure this task will be fun and easy. From the moment I finished reading the preface of the book released last fall by the Delaware Nature Society, I was hooked.

Dr. Woodbury describes how he began: "I became interested in insects (butterflies in particular) at a very early age. My parents encouraged this entomological interest, but some of my older New England relatives thought I was 'wasting my time.' My earliest butterfly recollection is of an argument with a neighbor boy also of preschool age. We differed about the reason that butterflies were called butterflies. One of us thought it was because some were mainly butter yellow in color. The other thought that they tasted like butter. Like true scientists, we decided to settle the question by conducting an experiment in which an impartial participant, my friend's much younger sister, would sample a yellow butterfly. The little sister was somewhat reluctant, but after a few lies about how good it would taste, she bit into the yellow Clouded Sulphur we provided. The results were immediate: She ran screaming to her mother, who rapidly propelled my friend into the

Bitten and Smitten by the Butterfly Bug





Top: Regal Fritillary *(Speyeria idalia)* butterfly.
Bottom: Author Linda Young would rather study butterflies in the calm shelter of her own garden.
photo by Michael E. Riska



Buckeye *(Junonia coenia)* butterfly.

house and called my mother. End of experiment."

Dr. Woodbury's curiosity continued, leading to graduate school with a Ph.D. in entomology from Ohio State University and a career with Hercules, Inc. He quickly converted from butterfly collecting to butterfly photography, and in the past 40 years he has captured on film 60 of the 61 known species of butterflies found in the Delmarva region. Many of these species are also found throughout Pennsylvania.

In short chapters, I am introduced to: the division of families within the superfamily Papilionoidae, how geology affects butterfly species, the basics of taxonomy and anatomy, warning coloration and mimicry, enemies, life cycle, and migration. Species descriptions consistently provide identification markings, range, habitat and adult food sources and immature stages.

Reading about the food sources provides tantalizing information. Here's what he writes about the Black Swallowtail *(Papilio polyxenes asterius).* "The favorites of adults include milkweeds, New York ironweed, thistles, butterfly bush, and zinnia. There are three generations per year."

About the Great Purple Hairstreak *(Atlides halesus):* "The Great 'Blue' Hairstreak would be a more appropriate common name as the upper wing surfaces of this beautiful butterfly are a brilliant iridescent blue. Below, the wings are jet black with three bright red-orange dots at the base of the wing. As adults, they prefer nectar sources such as goldenrod, sweet pepperbush and Hercules' club. As for the immature stages, there is little information on the size and color of the eggs. The slightly downy caterpillars are green with lighter green stripes on sides and back, and a yellowish stripe low on the sides. The number of broods in Delmarva is probably two, but this not known with certainty. The caterpillars feed exclusively on mistletoe."

In flipping through the book's color plates, my eye jumps from the high-impact photographs to the colorful names: Pipevine Swallowtail *(Battus philenor),* Cloudless Sulphur *(Phoebis sennae eubule),* Sleepy Orange *(Eurema nicippe),* Red-banded Hairstreak *(Calycopis cecrops),* American Painted Lady *(Vanessa virginiensis)* and

butterfly and caterpillar photos by Elton Woodbury



Top: Spicebush Swallowtail *(Pterourus troilus)* caterpillar: pick it off and get rid of it if you see it on your parsley, carrots, dill, celery or parsnips. **Middle**: Coral Hairstreak *(Harkenclenus titus)* caterpillar. **Bottom**: Coral Hairstreak *(Harkenclenus titus)* butterfly.

Tawny Emperor *(Asterocampa clyton).* How I would love to see a Great Spangled Fritillary *(Speyeria cybele).* According to *Butterflies of Delmarva,* it is "a large orange-brown butterfly with silver spots on the underside of the hind wings. There is no other common butterfly with these markings in Delmarva. It ranges throughout the eastern United States. As adults they feed on milkweeds, thistles, ironweed, Joe-Pye-weed, bergamot, and dogbane. Eggs are deposited in late summer and hatch in the fall. The caterpillars feed on various species of violets. The tiny larvae do not start to feed until spring and then only at night. When mature, caterpillars are black with many black spines that are orange at the base."

Spotting butterflies in natural areas is the best way to develop identification skills and an appreciation for habitat. But figuring out the logistics for a field trip can be such a hassle so I just love the idea of staging a butterfly show in my own backyard. In *Butterflies of Delmarva,* Dr. Woodbury sums up the advantages of gardens and designing landscapes with these beautiful insects in mind:

We decided to settle the question by conducting an experiment in which an impartial participant, my friend's much younger sister, would sample a yellow butterfly. The little sister was somewhat reluctant, but after a few lies about how good it would taste, she bit into the yellow Clouded Sulphur we provided.

"Observing and learning about butterflies and improves their chances of survival and reproduction. Butterfly gardens are becoming popular across the country as awareness of the need to protect butterflies and their habitats grow. Butterflies are crucial to the environment as effective pollinators of crops and flowers, sensitive indicators of ecological health, and major links in the food chain (especially as larvae). Gardens play an important part in ensuring their survival because they can provide much-needed food and areas for mating and resting.

"Not only will butterflies flitting gently about the garden add to its natural beauty, but they will also provide opportunity for people to become acquainted with various species, their life histories, and their behavior."

Dr. Woodbury then explains the basics:

"Modification of existing gardens to make them more attractive to adult butterflies usually requires the introduction of good nectar sources throughout the growing season. Butterflies are influenced in their selection of these nectar sources by abundance, color, ease of obtaining nectar, and height of the plant. Flower size is also important, as the small, short-tongued species of Lepidoptera cannot reach the nectar of large flowers . . . Butterflies have good color vision. Most favor white, yellow, orange, pink, or purple flowers. A few are attracted to red or blue."

Just as adding year-round bird feeder, leaf misters and bird baths to attract songbirds to backyards grows more appealing, gardening for butterflies is catching public attention. Books are devoted to the subject, varieties of cultivated and native flowers promoted as desired butterfly plants, and even butterfly feeders are available in garden supply catalogs.

Yes, there is a downside to attracting butterflies. If left unchecked, caterpillars can chomp precious plants and wipe out dreams of luxurious blooms and produce. But caterpillars are easy to pluck off, and with the *Butterflies of Delmarva* field guide to help identify them, I can decide whether to move the 'good guys' to an alternative food source or evict the 'troublemakers' from my premises.

Dr. Woodbury notes that in early spring, Delmarva swallowtail butterflies frequently feed on dandelion flowers. At last, a reason for not feeling guilty for letting a few 'dandys' dapple my lawn!

All ages from toddlers to those reaching for the century mark are enchanted by the beauty and grace of butterflies. With the spirit of youth and a bit of wisdom that comes with age, I look forward to greeting the members of the Papilionoidae superfamily that honor my garden with their presence.

Butterflies of Delmarva, a soft-bound field guide, is published in association with the Delaware Nature Society by Tidewater Publishers, Centreville, Md., 1994, 138 pp. Retail cost $12.95. Copies may be ordered by calling the Delaware Nature Society (302) 239-2334, or purchased at the Nature Society's Ashland Nature Center (Hockessin, Del.) and Abbott's Mill Nature Center (Milford, Del.). It is also available at regional bookstores and museums. For more information, call (302) 239-2334.

•

Linda J. Young is the communications coordinator for the Delaware Nature Society and a gardener who tries to have it all — cultivated flowers, vegetables and herbs; native wildflowers, ferns and shrubs; and strips of grass — within a 15-ft. x 40-ft. backyard.

Junk Changes to Treasure

by Gretchen F. Coyle

Someone else's junk can be a find for your garden. Over the years, the author has found many such rewards; they usually last a few years in her yard, then disintegrate in the seashore sun and dampness, to be replaced by new finds.

photos by Gretchen F. Coyle



A found treasure — an old feed box has been painted and filled with flowers.

"Will all this stuff fit in the back of my car?" I ask myself as I pull my red Jeep Cherokee over to the side of the road. My eyes are glued to a group of old-time screens and storm windows (wavy glass intact) waiting for trash pick up on the curb in front of an old Victorian house in Beach Haven, N.J. I visualize: a cold frame made from the storms and a sun cover for my shade-loving watercress from the screens.

One day I found a rather rusty roll of snow fence. I took it home and made a path in the sand from a wooden walkway down to our beach. At least once a year it is uprooted by a storm, but I just rake the area and flatten out the snow fence. This idea has worked so well that every few years I lay another roll on top of it for added support.

Once I found an old feed bin in the trash discarded from a stable. I took it home, nailed it together, and painted it white. It now sits by our garage holding colorful begonias and geraniums in the summer and bright chrysanthemums in the fall. An unwanted old pine box sits on our porch filled with pine cones and kindling during the cold months.

Lobster pots and crab traps are plentiful along the Jersey shore. Once discarded they are fair game. They look natural in a seashore garden filled with bright flowers or just set in the sand surrounded by dune grass and native perennials. Discarded piling ends can be found at any construction site in our area (a requirement for building on Long Beach Island). At our home we have many of different heights, either grouped with flower pots on top or marking a path. At the same construction site you can find lots of narrow pieces of scrap wood. I break them to about 2½ ft. using them as permanent markers to identify vegetables, or to mark where one variety ends and another begins.

From a house that was being torn down I rescued an old rustic cupboard that now sits in our back garden on a brick terrace surrounded by raised vegetable and herb beds. It is filled with clay pots and saucers. Old wooden benches are regular throw-outs. I keep a few resurrected as resting spots along brick or pine needle paths. They are easily replaced as they rot away. An old picnic table rests against a wall of our cedar shake house. It is the hub of planting activity in the late spring when I fill my many pots with colorful annuals and herbs.

in a Seashore Garden



Discarded snow fences make walking on sandy paths easier.



Bamboo cut from shoots in Florida make teepees for peas and beans.

Half-rotten wooden shackles and pulleys adorn our back fence as a reminder of another age of sailing. My husband even helps me collect rocks as our island is all sand. I have a wild garden interspersed with pieces of bog iron from the Pine Barrens, fossils from the Everglades, and some wonderfully smooth stones from a stream in North Carolina. At our winter home on Useppa Island, Florida, I collect bamboo shoots from our island dump. All cut to the same length they make wonderful "teepees" in our Beach Haven garden for pole beans, peas, malabar spinach, spaghetti squash, gourds and anything else that needs to be supported.

In the fall I pull out an old red wooden wheelbarrow that nobody wanted and fill it with pumpkins and gourds. Maybe this spring I'll pack it with pots of pansies. I move it when the mood strikes me; some years it just sits hidden away by the compost pile.

Right now I'm on the lookout for some "goodie" I can use to make a quaint fountain. Between trash picking (not as tacky as you may think) and an occasional yard sale I have picked up numerous collectibles over the years.

•

Gretchen came to her love of gardening as a child helping her parents with their Bryn Mawr, Pa., wild garden. She is an authority on seashore gardening having used the trial-and-error method over the years to see what will grow at the Coyle's bayfront home "Little Beach Farm." Each year she, along with husband John, cultivates about 40 types of vegetables, annual and perennial herbs, old time and native seashore flowers and shrubs, and a potpourri of summer annuals. Gretchen is an avid organic farmer who writes articles for environmental publications.

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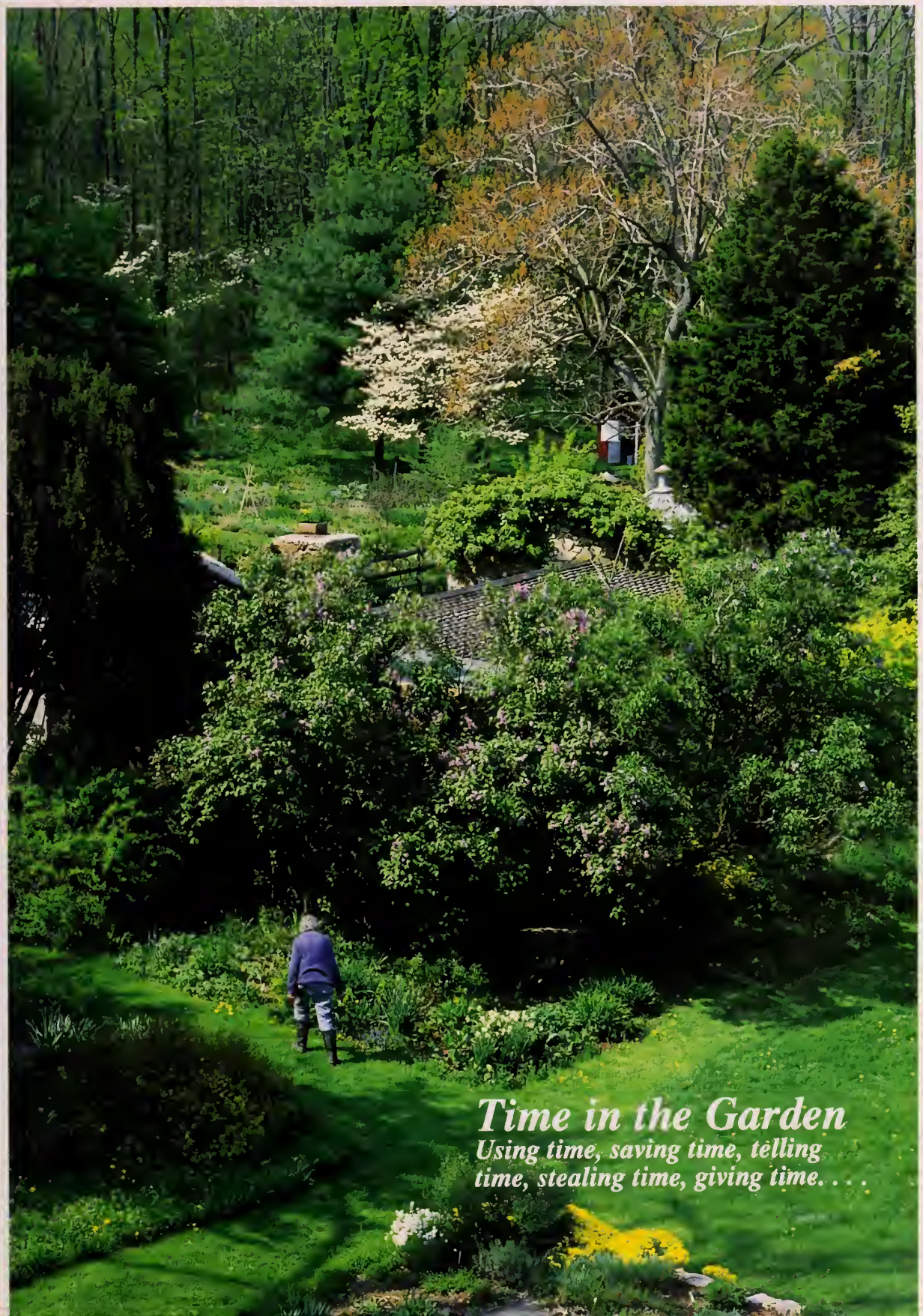


Yvonne Howard, chair of Southwark/Queen Village Community Garden, helps gather harvest for distribution to Philadelphia's hungry and homeless.
See page 13.
photo by Jackson Photography

1827

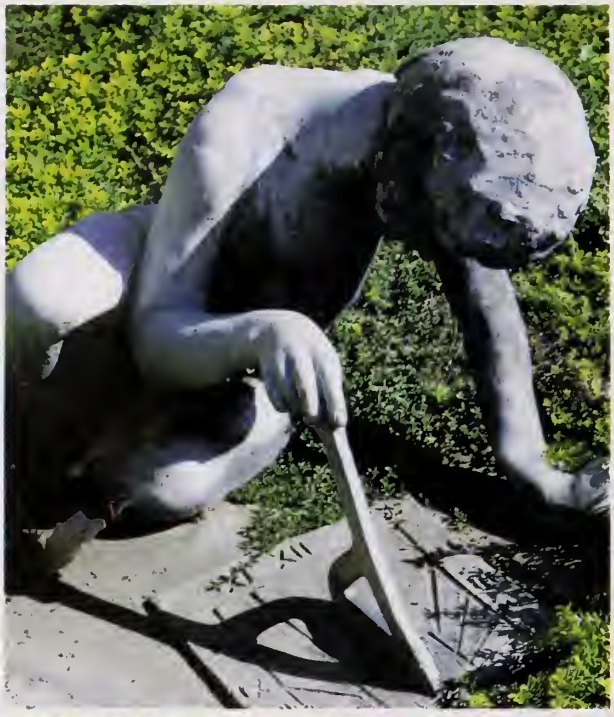
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Time in the Garden

Using time, saving time, telling time, stealing time, giving time. . . .



10.



16.



34.

Front cover: The design of Joanna Reed's garden has evolved over 50 years; yet it has been deliberate — "an anchor, fulfilling a basic need for form and function." See page 4.

photo by Mary Lou Wolfe

Grow with us.

in this issue

3. Time in the Garden
by Jean Byrne

4. Putting Time into the Garden
Joanna McQ. Reed

10. The Garden Tells Time
Olivia Lehman

16. Take Time to Save Time
Walter Chandoha

21. Stealing Time to Garden
Sally McCabe

24. Time and Talent: A Recipe for an Uncommon Garden
John P. Swan

29. Volunteers: Giving Time in Gardens Not Their Own
Kathryn T. Newland

34. When We're Not Gardening

38. Time in the Garden Heals
Patricia Schrieber

40. Index to Volume 23 of the *Green Scene*

42. Classified Advertisements

PLEASE NOTE:

Sandra Hynson, author of *Flowers to the Glory of God,* cited in the March *Green Scene* story: "Divine Inspiration: Flowers Lift the Spirit at Worship," asked us to advise people ordering the book by mail that the cost is $22.70 (cost of the book: $19.95 plus $2.75 for shipping).

To order, send check to: Washington National Cathedral Altar Guild, Felfoot Publishers, 4801 Toyer Road, Keedsville, MD 21756.

Jean Byrne, Editor

Volume 23, Number 6 July/August 1995

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Time In The Garden

by Jean Byrne



Illustration by Julie Baxendell

We humans, who created the concept of time as a marker, have been aware for centuries that the garden tangibly manifests time's passage from moment to moment, daily, seasonally and annually, as a place of continual regeneration and death. Generally, we do not mourn the passing of time in the garden, rather we eagerly plan for the next phase before we put this season's to bed.

Some of us lose ourselves in the garden and some of us find ourselves; these self-abandonments and self-discoveries are imprinted indelibly, as well as concretely and materially, on the matrices of time.

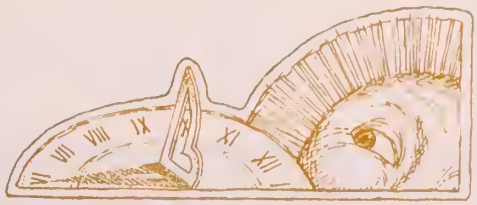
So in the garden we buy time, spend time, lose time and save time. We not only cultivate our gardens, we use them as sanctuaries, as places to pass time, time congruent with our deepest needs: to meditate, to reflect and to read, to eat, to sleep, to welcome butterflies and birds and pets; to paint, to play and to weep and to laugh.

As we discussed the topics for this issue on Time in the Garden, we worried that maybe the subject was too ephemeral. Not so, the subject is rich — practically and philosophically speaking. For example, Joanna Reed has gardened for 50 years at Longview Farm (see page 5), and Dick Lighty has gardened at Springwood for 35 years (see page 24): we learn here how these two gardeners began in innocence and developed a deep love for gardening as their gardens evolved to reflect distinctive visions that have inspired others. Joanna's garden surfaces again later in the issue when Patricia Schrieber tells of recuperating there for four months after a life-threatening automobile accident (see page 38).

If you need to steal time in the garden, you'll enjoy Sally McCabe's breathless, staccatto telling of why she doesn't have time to garden but wants desperately to without shorting her two children, her job and her other interests. If you "want it all" check out Sally's hard-nosed suggestions for getting more, if not it all (see page 21). And Walt Chandoha has lots of suggestions that take a little planning to save time, sanity and your aching back (see page 16).

Subtle, beautifully written and researched, Olivia Lehman's story shows the garden to be among civilization's early time tellers. She explores the role of the sun, moon and flowers in the passage of time, and the way a plant or garden can catapult us almost instantaneously across time into the past. And finally, there are those special people who give time in other people's gardens: the volunteer. Kathryn Newland gives five opportunities or excuses for leaving your own garden and spending time in other people's through volunteer work at the Society.





Putting Time Into the Garden

by Joanna McQ. Reed

Time in the garden is directly influenced by the development of the garden and the physical condition of the gardener. In earlier years both my focus and time was dedicated to the design of my garden, working with existing slopes, soil, stones, water and wind. Then to learning a vocabulary of plants and methods for their care.

The underlying design that evolved is strong and deliberate, an anchor, fulfilling a basic need for form and function. I jokingly attribute this passionate personal need to having been born a Virgo, having been raised by a German governess and having been educated by a retinue of nuns.

photo by Joanna McQ. Reed



Joanna expected this clear yellow *Hemerocallis* 'Hyperion' to bloom from a first planting of gift bulbs. "No such luck, the good old *H. fulva* came up instead."

Practicality and order, regimented order, was the priority. Art school stressed like priorities, order remained but beauty replaced regimentation.

The plants within the gardens at Longview Farm conform to the design, their roots and crowns in specified locations. As they grow and develop, however, they weave and mix with reckless abandon, to our mutual satisfaction. My Virgo traits mix with Libra's free spirit. Happily I was born on the cusp.

Time in the middle years fluctuated between lackluster maintenance and outright neglect. Our lives were filled with

Left: Joanna Reed gathers all the materials and tools she'll need before she starts work in the garden. Good planning means she can spend more time with her plants.

Putting time into the garden



photo by Mary Lou Wolfe

One of today's tasks: check to see which plant needs staking for support.

other demands. Family, friends and travel were the interests, the garden became a patient background leading a life of its own. Sturdy perennials, in charge of their own destinies, spread into eye-catching clumps. Equally sturdy annuals seeded themselves into washes of color. The faint-hearted faded away. Disturbed by such severely limited time I followed the dictates of the flowers themselves. I divided perennials, gathered seeds of annuals and spread both annuals and perennials farther afield in new habitats as an experiment.

Most hobbies could not survive such neglect but the garden being in partnership with nature was fine, lovely in its own way.

During these, my later years, the garden and I form an even stronger partnership. Together we are Longview Farm and to our joy people come to visit, giving us a strong valid focus and endless inspiration.

Frequently I am asked, "Why do you spend so many hours in the garden?" — "How can you work so long in your garden?" and "Don't you get bored being in the garden?" These questions come from family and friends. Visitors' remarks are apt to be tinged with envy. "I suppose you spend all day in the garden." or "I do wish I had all the time I need and want for the garden, like you." The true gardener has yet to live who has enough time in his or her garden.

I, for one, have certainly never been satisfied with any amount of time, probably never will be. Greed regularly engulfs me. One hour and I need three. Three hours and I need a day. One plant is a success, immediately I feel the need to establish it elsewhere in two or three locations. This system almost guarantees that I will find a scrap or two missed by hungry predators in search of tasty items on the menu.

The task for the day

Usually I commence a day or work period with a specific task in mind; edging paths, tidying borders, planting bulbs or clearing away debris after a storm.

His answer, a desperate plea: "Joanna learn to spell, you will have me in the brig! Your nomenclature is not recognizable as such."

Typically while gathering my tools for the planned job, however, a stack of hoops reminds me that they had better be placed before a threatening storm bends and breaks tall stately stems. Placing the supports around dahlias, salvia and *Tithonia* gives me the opportunity to pinch back asters, boltonias and *Artemisia lactiflora* (a robust giant) for sturdier, showier plants. Ripened seed pods of poppies and *Baptisia* are harvested to be scattered elsewhere, and mulch has been spread to preserve moisture. As I stretch to survey the results with satisfaction and pleasure a thought flashes through my mind. "What was it that I had planned to do?"

No matter, the sun is hot, the humidity is high, the threat of storm has passed. So back to the tool house for drop cloth, clippers, loppers and trowel. The woods are my refuge from summer heat. The overtaking vines pull up easily that day, honeysuckle, bittersweet, poison ivy, Virginia creeper and English ivy. Their roots and trailing stems have become so enmeshed and entwined all must go, good and bad, or the small treasures like early bulbs, creeping phlox, foam flower and ginger will disappear.

Mrs. Barnes was right, English ivy is aggressive, beautiful in its many cultivars but difficult to control. Thoughts of Laura Leggitt Barnes take me back to the 1940s. I attended classes at the Barnes Arboretum in Merion, soaking up information presented by horticulture's finest, seeing woody plants through new eyes: twigs, bark, buds, leaves, flowers and fruit in endless patterns, colors and shapes. With each trip around the Arboretum grounds we become more familiar with these treasures.

In spring and fall we could take home seedlings of *Cladrastis, Symplocos, Phellodendron, Oxydendron* a veritable horticultural alphabet, *Amelanchier* to *Zanthoxylum.* Wrapped and labelled, they awaited the students' choices. I picture Mrs. B. as a brisk, diminutive, female Johnny-Appleseed, spreader of unusual plants little known or grown in the Delaware Valley at that time.

Those trees from Barnes that prospered serve as reminders of my timely good fortune. The common roadside daylily is a reminder that brings a chuckle. I planted a large basket of tubers, given by Mrs. B. in answer to my request. My expectations were clear yellow blooms, perhaps *Hemerocallis hyperion* or some of those beautiful Stout hybrids, tops in the '40s. Each tuber produced a plant that did indeed bloom on schedule, but orange. Every one was the good old *Hemerocallis fulva.*

Along with the daylilies I acquired a modicum of horticultural stature. Mrs. B. in her classes was commending my repetitive use of a common plant in the landscape as a clever accommodation to a limited budget. They remained in my garden in their prominent spots until after her death. They now populate my roadsides.

Memories people the garden

The day being still hot, I remained in the woods to prune back leucothoe and rhododendrons, which had all but obliterated a path. Memories of my brother Jim McQuail crowd in. His grasp of horticulture was more advanced than mine. My letters to him, a naval officer during WWII, contained drawings of proposed garden sites, complete with lists of plants (Latin, of course) and diagrams. His answer, a desperate plea: "Joanna learn to spell, you will have me in the brig! Your nomenclature is not recognizable as such."

One afternoon after my brother's return from the Pacific, we excitedly told my husband George about the trees and shrubs purchased at Allenwold Nursery. George offered the station wagon for transportation. We laughed in unison as we opened the small package that held our treasure. Allenwold's specialty was rooted cuttings. George's smile was skeptical.

What I was pruning were progeny of those tiny cuttings once they had become established. Jim's wispy oaks and pines grown to impressive size bring grandeur and shade to his fine garden, tended in its

continued



Joanna Reed takes a moment to reflect on her work.

"Everything that slows us down and forces patience, everything that sets us back into the slow cycles of nature, is a help. Gardening is an instrument of grace." Quote by May Sarton, author and poet, from *Journal of a Solitude,* W.W. Norton, N.Y., 1973

Putting time into the garden







photos by Joanna McQ. Reed

Top left: *Aquilegia vulgaris,* a self seeder. **Top right**: They filled the trunk of Joanna's "father's spanking new car with German iris," which they soaked at a nearby gas station. **Bottom**: These fragrant parterres photographed in spring are part of Joanna's strong, underlying design that offer a resurgence of color in late summer.



photo by Joanna McQ. Reed

The courtyard, near the house's entrance, is planted around the perimeter and incorporates container-grown plants. The tables are for meals in the late spring, summer, and fall.

maturity by his widow Virginia and son Chris.

It is impossible to spend time working in any part of my garden and woods without thinking of persons and episodes. For example, my great-aunt Nora, whom after filling the impeccably clean trunk of my father's spanking new car with German iris and other goodies, told me to thoroughly soak them at a nearby Esso station. Upon hearing whose car it was, she adjusted her advice. "Better say goodby first then stop at the Texaco station on the far side of town. Be sure to use lots and lots of water." The car did recover. Those iris and tuffets of *Saponaria ocymoides* will grace the garden, fragrant sweet ties to a past generation.

Thyme and *Lavandula* say Nancy Howard; *Origanum,* Art Tucker, topiaries, Ernesta Ballard and Cecily Clark (I forget to have my hair cut so have given up training plants). Wildlings, tree, shrub or herbaceous bring memories of the late Hal Bruce. His advice lives on through his rich words.

Spiraea I knew and grew, but *S.* 'Blumei' and *S.* 'Miyabei,' gifts in '90 from Bill Thomas and his Longwood students, outcharm the others. Coming from Korea, probably spotted by Dick Lighty on one of the many expeditions sponsored by Longwood Gardens, the Morris Arboretum of the University of Pennsylvania and the National Arboretum.

My dry fragrant parterre has a resurgence of color in late summer when *Dianthus superbus longicalysinus* turns pink. *Astilbe chinensis* 'Davidiana' is spreading throughout my damp island beds bringing extra height and interesting seedheads. Both plants were grown from seed that Paul Meyer collected in China.

My bent posture elicits another oft-repeated question. "Do you think it is wise to work so hard?"... I plod along slowly following the advice of a long gone friend to "look at what is finished and back into what needs doing."

A *Koelreuteria paniculata,* golden chain or varnish tree, was a plant dividend from FONA (Friends of the National Arboretum). Five *Salix longifolia,* once cuttings from Bill Frederick, are ready for permanent placement.

Present day plant explorers (besides causing jealousy in our hearts) link us to the past. Link us to that long list of intrepid botanists (consult *Hortus III)* who have contributed such glory to our landscapes. The *Koelreuteria,* indigenous to China and Korea, was introduced into cultivation by Erich Laxman in 1763. Its bright yellow summer flowers and papery ornamental pods made it popular with colonial gardeners.

Oh those 18th century botanists, in what a rich undiscovered world they lived. They knew and appreciated their world: explored, recorded, communicated and grew.

Peter Kalm (1715-1779), Swedish, and Andre Michaux, French, introduced our North American kalmias to Linnaeus. Hearsay holds that our own John Bartram sent the greatest number of genus and species to Linnaeus. These kalmias, mountain laurel, should be of equal interest to 20th Century gardeners, their foliage is reported to be highly poisonous (could they be deer-proof?).

My time in the garden is rich. Productive work comes automatically, freeing my mind for memories of past success (failures fade fast) and anticipation for new effects. My costume, while gardening, is blue jeans, long-sleeved shirt and boots, all grubby. My bent posture elicits another oft-repeated question. "Do you think it is wise to work so hard?"

In actuality I plod along slowly following the advice of a long gone friend to "look at what is finished and back into what needs doing." All the while my minds turns like a kaleidoscope with ever-changing visions and memories, of words read and heard, of plants to lust for. I picture people I know and have known as friends. I picture people who have given of themselves through plant introductions, through books and lectures, sometimes inspiring practicality, sometimes bringing pure beauty, romance and wisdom. I spin into exotic lands where many of our plants have come from, and I think of our country through the eyes of John Bartram. I suspect the West Virginia hills of my childhood clothed in hemlock, oak, oxydendron, *Cercis canadensis* in bloom with *Cornus florida,* wild azaleas and rhododendrons, were similar, except where man's hands had brought harsh change.

Endless delight swirls in my mental kaleidoscrope and you guessed it, I will never be satisfied with any amount of TIME.

•

After 50 years of gardening, Joanna Reed finds ruthless removal as important as continuous planting. Longview Farm is open without an appointment Thursday, Friday, and Saturday from noon to dusk. You're welcome to bring a picnic lunch or supper. There is a fee of $5. Children under 12 are free. (See ad on page 42.) In June 1995 at Cornell University Joanna Reed was honored with the Nancy Putnam Howard Award by the Herb Society of America for Horticultural Excellence at its Annual Meeting.

The Garden Tells Time

by Olivia Lehman



Ere Man is aware
That the spring is here
The Flowers have found it out.
— Old Chinese saying[1]

Floral clocks

Poor man's weatherglass, shepherd's clock, *Anagallis arvensis*... scarlet pimpernel: All names for one of the flowers whose openings and closings gauge time. On British soil the pimpernell is said to awaken quite regularly at 7:08am and head to sleep in the afternoon at 2:03. Yet today, when we are able to cross the sky at fantastic speeds and transplant hearts, it seems quaint to seek guidance from a blossom. Flowers as clocks!

Certainly during all those centuries before mechanical timepieces made an appearance, men and women sought help in ordering their days and nights. In addition to the beacons of sun, moon, and star, people counted on plants (as well as hourglasses, sundials and candles) to help them calculate the passing of time. In the early 1700s the botanist Carolus Linnaeus, best known for his work on the science of taxonomy, planted a 'Floral Dial' or 'Floral Clock.' Having observed the behavior of many plant species, Linnaeus was able to determine which combination of flowers would register the times of day most comprehensively. His timetable, established upon Swedish weather conditions, included 20 "Equinoctial" flowers whose schedules of openings and closings might keep one informed of the hour fairly consistently between 3:00am and 10:00pm. A good variety of plants kept the clock ticking — everything from late flowering dandelions to garden lettuce and white water lilies.

Although Linnaeus's floral clock is particularly well known, he was not the originator of this clever time keeper. As early as 40 A.D. the Roman naturalist Pliny mentioned a floral clock in his writings, and in the Middle Ages such plantings were commonly found in monastery gardens. Contemporary floral clocks are rather sophisticated, in some cases driven by weights or electricity. That these relatively inelegant clocks continue to be appealing, even to a technologically advanced world, reveals our great need to connect the goings on of plants with that august notion, time. We begin fashioning this association during our very early years.

Remembering

Aye, flowers! the very name
of flowers,
that bloom in wood and glen,
Brings spring to me in winter's
hours,
and childhood dreams again.
The primrose on the woodland's lee
was more than gold and lands
to me.
— John Clare[2]

The flowers that fascinated and comforted us in childhood are remembered not just for their shapes and colors, though we'll never forget those details, but also for their positionings — a mysterious locale, a



illustration by Julie Baxendell



singular placement in time. Could John Clare's primrose be truly his without its issuance from so particular a "woodland lee"? When I was a little girl lily of the valley grew in our narrow alleyway, wild and familiar. No knowledge of this plant's prevalence, or its progresson from seed to bud to maturity, will ever rob me of the faith that *Convallaria majalis's* most natural state is to be in full flower amidst ivy, brick and concrete.

Connections we made between flowers and time are certainly as intense and infused with poignancy as those between flowers and places. In fact, when this idea of time surfaces the array of associations seems quite expansive. One can summon plant memories that recall a time of day, a season, a time of life. Somehow, the quirky behaviors of beloved plants even shape our perceptions of what the passing of time feels like. The surprise and dartingness of late winter's first snowdrops and crocuses often signal an end to the sluggish movement of time that characterizes winter months. A sighting of one of these charms can add bounce to one's step even before the spring thaw is complete. Suddenly, days are more infused with activity — indeed time seems to run ahead of us, it's going faster.

When it comes to reminiscence, how could one ignore the nose! Research has proven that scents from one's past are more deeply embedded in the brain than any other sense memories. Times of year carry indelible olfactory markers, most of them put forth by plants. There is the far-reaching sweetness of privet flowers and honeysuckle during warm months, the bracing wet aromas of leaves and ice during colder ones.

The British poet William Wordsworth canonizes nature in his Ode, "Intimations of Immortality from Recollections of Early Childhood." The poem's pastoral lyrics couch a wistful, though finally transcendent vision of the passing of time, welcome to

continued

The garden tells time



photo by Ann Reed

"Aye, flowers! the very name of flowers . . . Brings spring to me in winter's hours, and childhood dreams again." Quote by John Clare

any of us who has ever mourned our loss of childish wonder. The ode's final couplet awards the role of mascot to a flower, seen perhaps as one of earth's most elemental offerings, powerful in its ability to inspire meditation and remembrance; "To me the meanest flower that blows can give thoughts that do often lie too deep for tears."

By the light of the moon

Sow peason and beanes in the
wane of the moone,
who soweth them sooner,
he soweth too soone,
That they with the planet may rest and arise,
And flourish with bearing most plentiful wise.
— Thomas Tusser[3]

Pragmatic observers will note that it makes perfect sense for the behavior of plants to be linked with the passage of time, that the bond is hardly mysterious. After all, plants as a group comprise one of the most encompassing and predictable elements of the human environment. Nevertheless, we continue to marvel in an unscientific fashion at the ways in which plants can number our hours and evoke the past. Folklore, that compilation of mankind's legends, beliefs, and customs, explores the relationships between plants and time not in terms of how people can use flowers as gauges, but rather, how we can use celestial bodies as guides in planting.

A great deal of information from traditional sources instructs gardeners on when to sow, tend, and harvest, according to the phases of the moon for she has long been one of a farmer's most important markers of time. Unlike the sun and stars, whose forms do not seem to alter, the moon undergoes an approximately 29½-day cycle of change 12 times every year. During each "lunar month," the moon's appearance transforms from initial invisibility to a final thrilling fullness, and back again to invisibility, as she makes her circle around the earth.

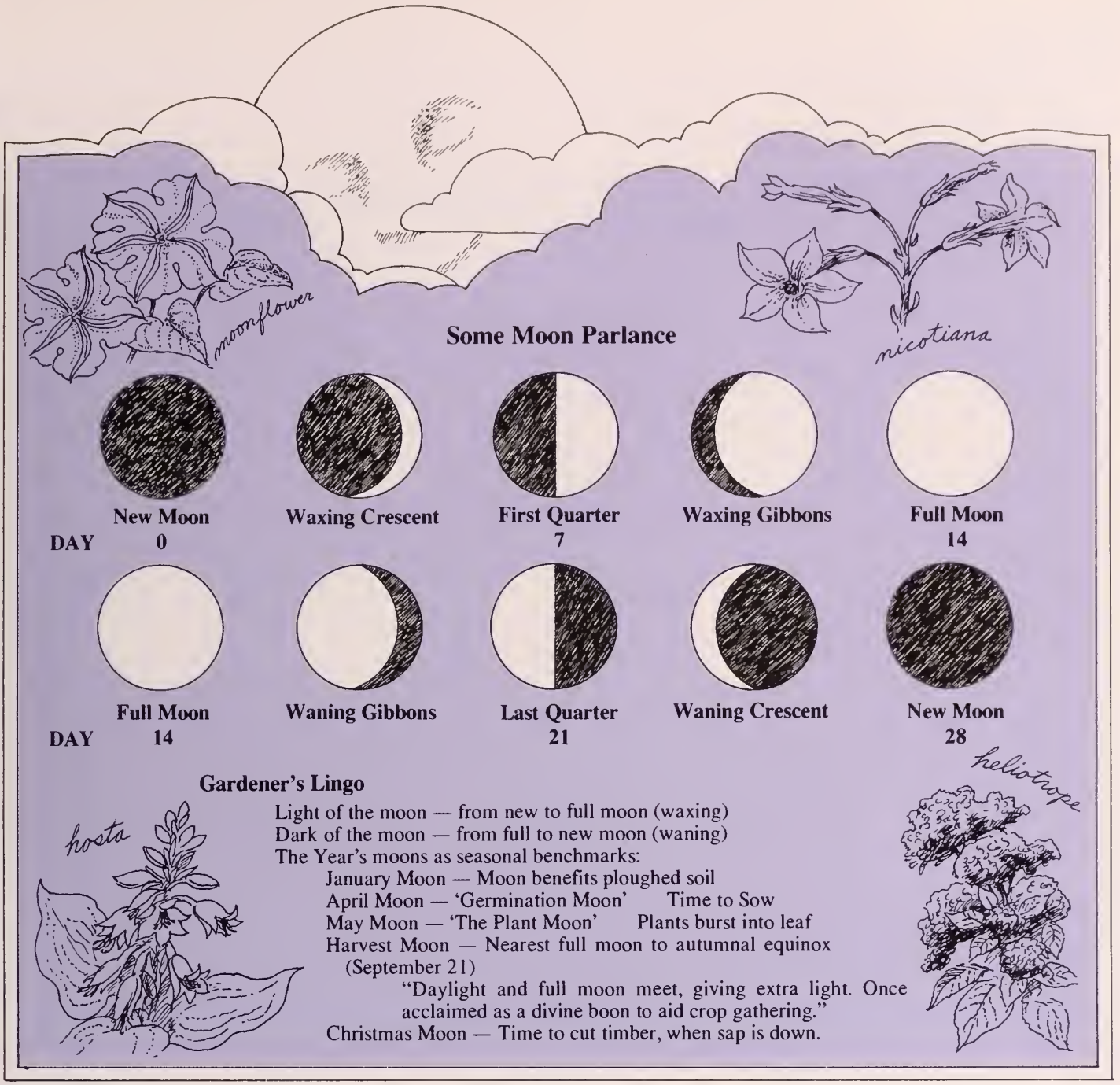
Scientists now understand just why it makes sense for gardeners to take note of the moon's phases. Because lunar rhythms influence the movement of all water on the earth and in its atmosphere rainfall patterns may be predicted with the moon's help. Bridget and Maureen Boland, authors of a lively modern volume called *The Complete Old Wives' Lore for Gardeners* maintain that "Every Old Wife will tell you to sow seed and to transplant only with a waxing, never a waning moon." Both pieces of folkloric advice are well endorsed by the statistically proven fact that heavy rainfall is more likely to come just after a full or a new moon.

It is enriching to learn that scientific bases for long-held beliefs about gardening, to discover the facts behind the lore. Yet I suppose the Boland sisters speak for many of us when they mention their "sentimental attachment to the notion that magical forces are involved" in the relationship between the moon and plants.

Night-time gardening

The small child,
told to grind rice
Instead, gazes at the moon.
— Basho

For gardeners and non-gardeners alike, the moon's light announces the arrival of a



sacred and terrifying hour, a time not often associated with the sounds made by pruners and wheelbarrows. But in fact the night is a wonderful time both to garden and to enjoy the scents and breezes of the outside. Someone once said that the best place to write about Paris is in New York. To garden at night is to gain a fresh look at nature.

In her excellent book, *Evening Gardens,* Cathy Wilkinson Barash tells the story of how she literally stumbled onto the pleasure of night-time gardening. After a rough and very long day working at a new job, Barash arrived home in the dark, only to trip and fall on one of the flagstones near her front door. As she got up her attention was summoned by: "a sweet aroma in the air. A light was on in the bedroom, shedding a pale glow outside. I looked up to see large, luminescent white moonflowers seemingly floating on the air . . . "

During the following nights the author spent time watching the openings and closings of these flowers, marveling at their peaceful movements, and finding the experience meditative. Soon Barash's moonflowers were joined by such "night-fragrant" plants as nicotiana and tuberose — a true moonlight garden was in the making. If you hope to create a night-time garden of your own, consider these categories of plants, all of them recommended by Barash[4];

- **Sculptured Types** Use flowers with an architectural quality; they create interesting silhouettes when viewed against a white wall or the evening sky. Examples: bamboo, cactus, evergreens, ferns, grasses, palms.
- **Light-colored Trees and Shrubs** Consider trees with white bark, or ones with unusual patterns that can be illuminated at night. Examples: birch, striped maple, red-barked dogwood, yellow-twig dogwood.
- **Flowers that Glow at Sunset** Note that plants with dark blue, purple and cerise flowers emit a lovely glow at sunset. Examples: peach-leaved bellflower, glory-of-the-snow, cineraria, clematis, coleus,

continued

The garden tells time

photo by Derek Fell



The moon comes up on Cedaridge Farm in Bucks County, Pennsylvania. Petunias brighten the area around the arbor seat for restful evening reflection.

grape hyacinth, bee balm.

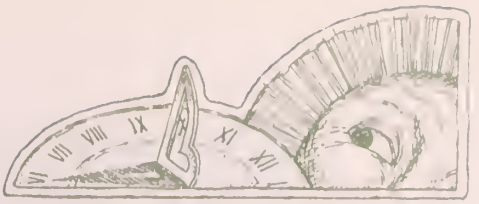
- **Bright Flowers** Not surprisingly, orange and yellow flowers continue to sparkle even as daylight fades. Barash suggests that they "bridge the gap between day and evening." Examples: canna, azalea, coreopsis, leopard's bane, red hot poker, statice, daffodil, orange coneflower, marigold, tulip, zinnia.
- **Pale, Low-growing Plants** A patch of pale impatiens can throw surprising night color at your feet. Other examples: blue star creeper, rose daphne *(Daphne cneorum),* five spot *(Nemophila maculata* 'Five Spot'), phlox.
- **White Petals and Leaves** White flowers come alive at night, as do plants with silver foliage. Examples: goatsbeard, snow-in-summer, dove tree, common shooting star, heather, snowdrops, baby's breath, candytuft, alyssum, calla lily, artemisia, cardoon, sage, dusty miller.
- **Night Bloomers** Certain species bloom only at night. Examples: angel's trumpet, saguaro, old man cactus, night-flowering jessamine, night-blooming cereus, organ-pipe cactus, monvillea, night phlox.
- **Stars of the Evening Garden:** Artichoke, angel's trumpet, snow-on-the-mountain summer hyacinth, heliotrope, hosta, moonflower, nicotiana.
- **Fragrant Plants** With evening's diminished light comes a greater appreciation of one's other senses. Fragrant plants are a delight. Examples: coffee, lemon, gardenia, kahili ginger, *Gladiolus tristis,* jasmine, honeysuckle, sweet pea, oleander, lilac, linden, sweet violet.

(Note: For specific varieties please check *Evening Gardens* by Cathy Wilkinson Borash; this book is available for use in the PHS library or to members on loan.)

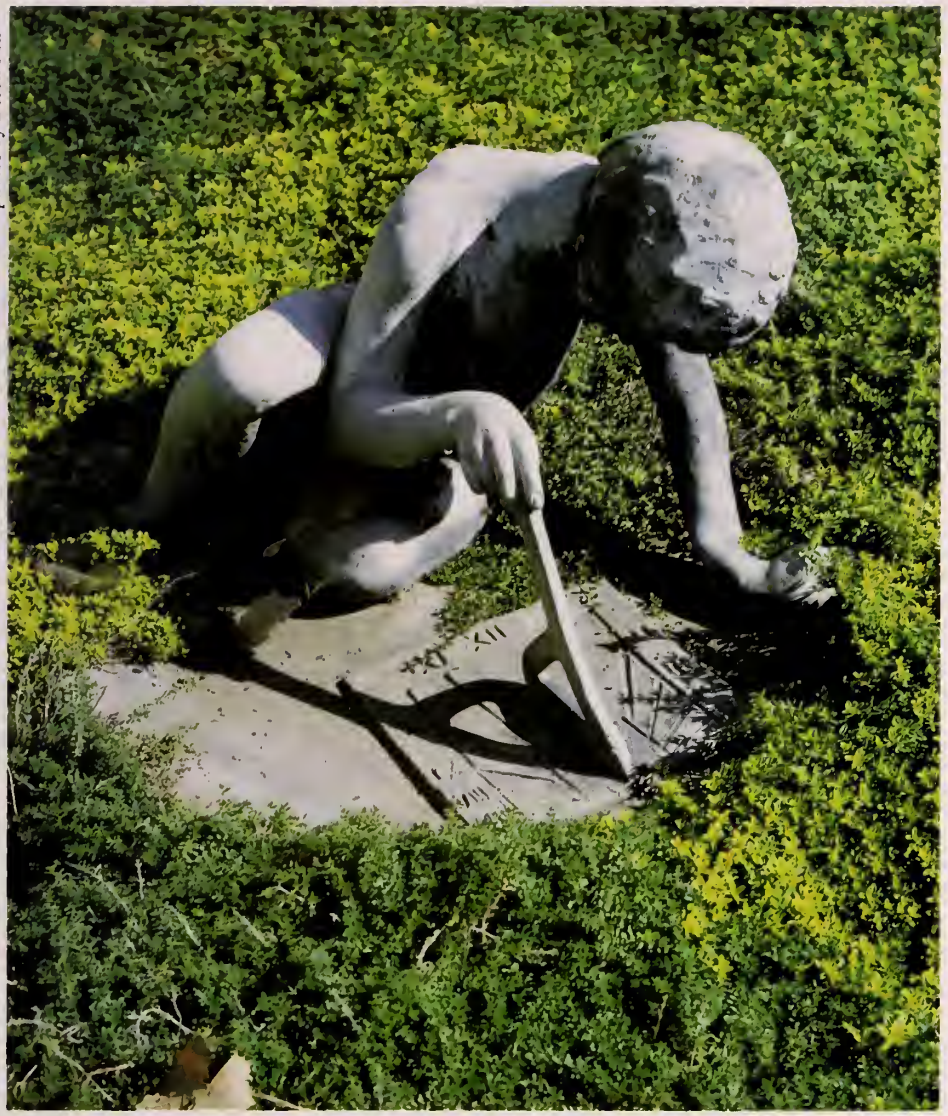
By the light of the sun

. . . I could see [the sun dial's] face only by raising myself on tiptoe on its step; and there, with my eyes level on the plate, did I watch and ponder, day after day, painfully forming my first clear conceptions of time amidst a confusion of notions of day and night, and of the seasons, and of the weather.

— Childhood memory of writer Harriet Martineau[5]



photos by Derek Fell



Sundial set in a bed of thyme and vetiver. The dial's shadow marches bravely through a day, reminding us with simple precision that time cannot be stopped.



Small animals delineate the hours on this sundial at Ladew Topiary Gardens in Monkton, Maryland.

Though inanimate themselves, sun dials are almost always found amidst the organic lushness of a garden. Their ancient character fascinates, thrusting us headlong into the austere face of time. The dial and flower are perfect neighbors. Each marks the passage of time, but with such different styles! We rely on the dial's shadows to march bravely through a day, reminding us with simple precision that time cannot be stopped.

Yet flowers speak of time in perhaps a more comforting voice. Unlike other timekeepers, plants are hardly abstract. We smell them, eat them, bathe in them. And although flowers can inspire melancholy through their evocation of times past, the blossoms themselves are a delight. When taking in the good orange humor of a bunch of marigolds, or the seductive scent of a rose, we feel so alive.

We feel a greater ease in facing the enormity of time when it is "measured out by flowers." Perhaps for this reason we continue to create floral clocks, and challenge the darkness by planting moonlight gardens. Poets have long been known to conspire with a petal and a leaf, leading us back to our youths, to a place where time was barely understood, hours only lived.

References

[1] — *Sun-dials and Roses of Yesterday,* Alice Morse Earle, Charles E. Tuttle Company, Inc., Rutland, Vermont, 1971.

[2] — *The Power of Plants,* Brendan Lehane, McGraw-Hill Book Company (UK) Ltd., Maindenhead, England, 1977.

[3] — *Gardener's Magic and Folklore,* Margaret Baker, Universe Books, New York, N.Y., 1978.

[4] — *Evening Gardens,* Cathy Wilkinson Barash, Chapters Publishing Ltd., Shelburne, Vermont, 1993.

[5] — *Sun-dials and Roses of Yesterday,* Alice Morse Earle, Charles E. Tuttle Company, Inc., Rutland, Vermont, 1971.

For Further Reading

The Complete Old Wive's Lore for Gardeners, Bridget and Maureen Boland, The Bodley Head Ltd., London, 1977.

The Lore of Flowers, Neil Ewart, Blanford Press, Dorset, 1982.

All books listed above are available through the PHS Library to members of the Society.

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Writer Olivia Lehman lives and gardens in Narberth, Pa.

photo by Walter Chandoha

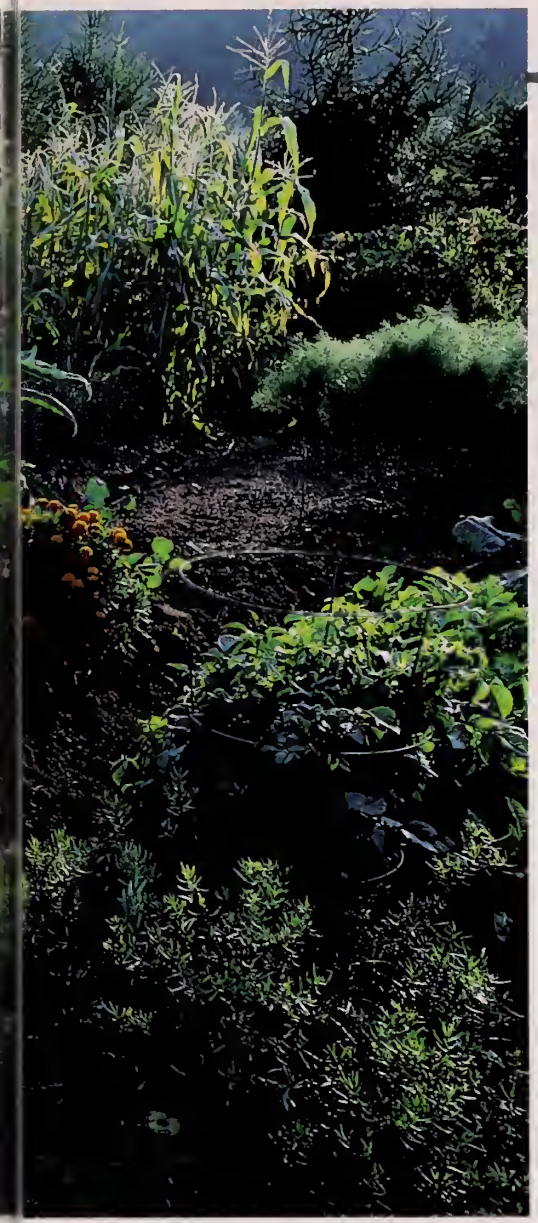


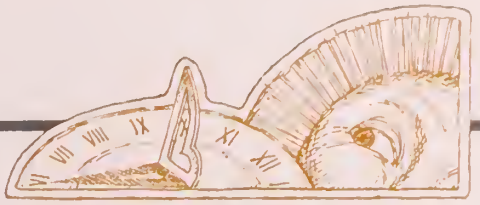
The author's golf bag mounted on a two-wheeled pull cart holds garden tools. Long-handled stuff — hoes, rakes, shovels — go where the golf clubs went. Pockets hold trowels, pruners, hand rakes, seeds and other small things. At the end of the day all tools are returned to the cart, which is wheeled to under cover.

take time to save time

by Walter Chandoha

Here's a gardening efficiency expert whose time-saving suggestions will save you hours, maybe even weeks, in found time each season.





We can make our gardens bigger or smaller. We can add plants or delete them. We can fertilize them or not and give them water or withhold it. But the one thing that is fixed and inflexible in the garden is time.

All of us get 24 hours every day. We sleep a third of that day, we work another third, and in that final third we hope to eke out a few minutes or hours for gardening. During the week, however, most of us have other priorities so gardening becomes a week-end activity. Yes, if we can afford it, we can hire help to do our gardening, but let's face it, the fun of gardening is in the doing, the creating, getting dirt under our fingernails. A friend of mine, a golf addict, cannot understand why I don't play golf more often. When I tell him my gardening takes most of my spare time, he suggested I hire someone to garden for me. When I counter-suggested he hire someone to play golf for him he began to understand why I prefer to do my own gardening.

Not enough time to garden has always been a problem for me. So after scratching in the dirt for 40-some years, I have found the best way to get the most out of garden time is to not waste any of it. For example: Take something as elementary as the minute or two spent looking for a garden tool you've temporarily mislaid. Momentary forgetfulness happens to all of us. We're working in one part of the garden and we're called into the house to the phone; we return to the garden, need a trowel and go searching for the one we were using before the phone call. Even if it took only one minute to look for the missing trowel, it's a minute wasted. Next time you're working in the garden use a watch to see how much you can do in a minute. A lot! What does a good trowel cost? $10-$15. Why not buy two or three and stash them in different parts of the garden. I have four of them parked around the garden and all of their handles are painted a bright yellow to make them highly visible. A tool with a brightly painted handle is instantly visible. To prove it make a side-by-side test: lay two tools on the ground — one painted, one not — go to the other side of the garden and take a look at the tools — the brightly painted one stands out like a sore thumb.

Let's get back to the telephone call. If you're a telephone person, why not invest in a portable, cordless phone and bring it out to the garden when you're working there. When it rings, you answer it in the garden. Saves time, you don't have to run back to the house, very likely tracking in mud, which will then take more precious time to clean up.

Like the cordless phone, there are other machines that can save you time. Let's say you have a privet or yew hedge that you've been keeping in shape with hedge shears — you can do the job faster and better with a gas-powered or electric trimmer. And how about preparing your garden for planting by laboriously digging it with a spade or a fork. Why not invest in a tiller. Years ago, after I wrenched my back lifting some heavy rocks into a wheelbarrow, I invested in a small diesel tractor with a front-end loader and a tiller on the back. This is the best time-saving piece of equipment I own. I use it as a bulldozer, a snow plow, a compost pile turner, everything that needs carrying is hauled in the front-end bucket and with the rear-mounted 50-inch tiller I can expand my gardens almost instantly.

I invested in a small diesel tractor with a front-end loader and a tiller on the back. This is the best time-saving piece of equipment I own. I use it as a bulldozer, a snow plow and a compost pile turner; everything that needs carrying is hauled in the front-end bucket.

With the tiller on the back of my diesel tractor I minimize digging time. And I've even eliminated much of this yearly digging and tilling by building raised beds. Yes, it takes times to build these but anytime you can take time to save time, do it. Once raised beds are built getting them ready for planting takes a minimal amount of time.

If you'd rather not take the time to construct raised beds out of timbers, boards, bricks or stones, make them as I do, of raised soil plateaus with sides sloping down to the walkways between the beds. Whichever type of raised bed you choose to build, the time you've invested in their construction will be saved many times over. Raised beds eliminate one more garden chore — digging and tilling.

Another time-consuming chore in most gardens is keeping weeds at bay. Why spend precious time weeding when ground covers and mulches can choke out weeds before they become a problem. A fast and economical way to mulch a large area is to cover it with newspapers topped with grass clippings, pine needles or shredded leaves. Lay 8-15 sheets of newspaper over the area to be controlled then cover the paper with the mulch. If grass clippings are used, stir them up every few days to dry them to prevent molding and matting.

Ground covers are another way to exclude weeds. In its broadest meaning, groundcovers are plants so closely spaced that nothing else can grow in the same area. Many gardeners think of ground-hugging conifers, ivy, pachysandra and myrtle as

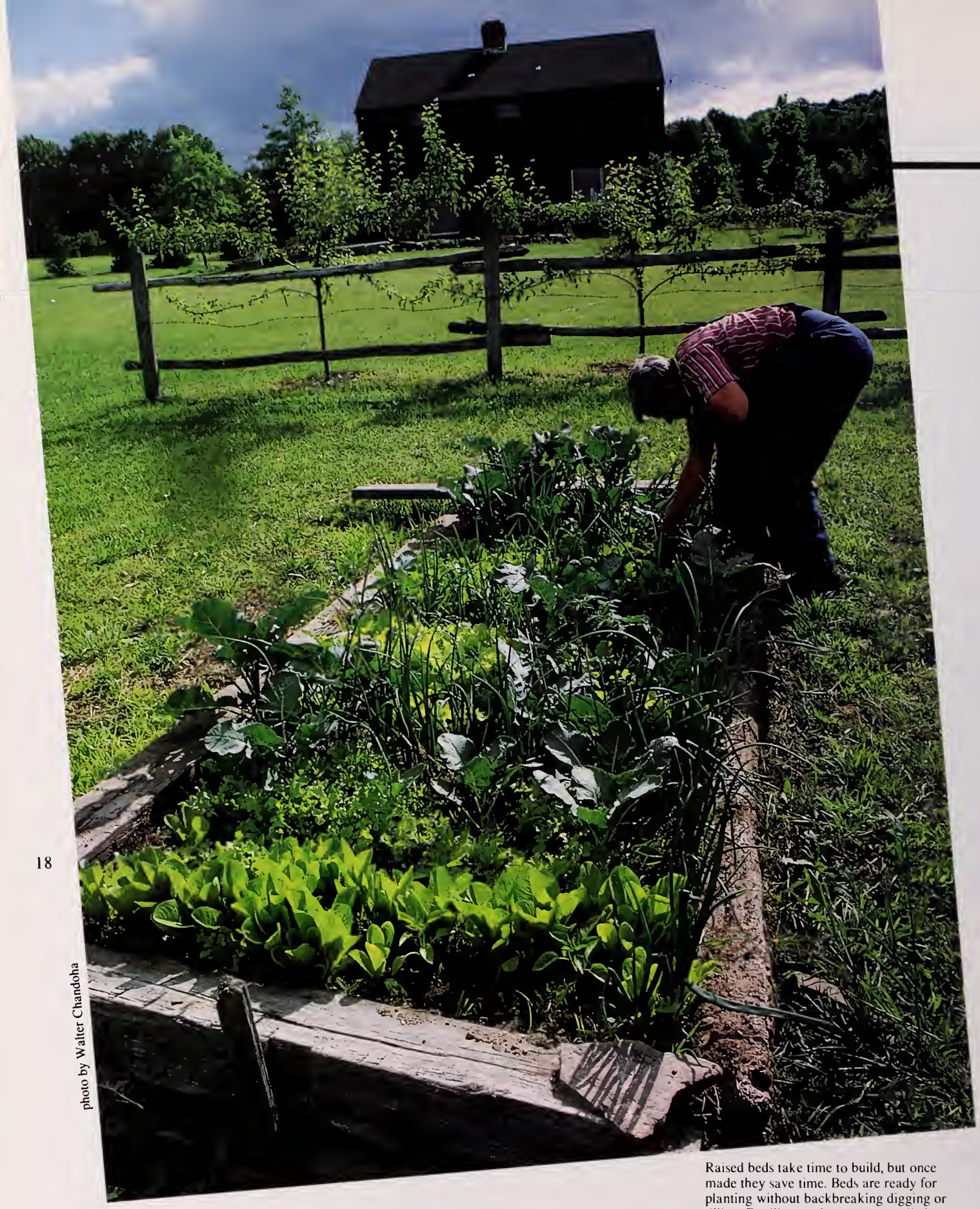


photo by Walter Chandoha

Raised beds take time to build, but once made they save time. Beds are ready for planting without backbreaking digging or tilling. Fertilizer and water are applied precisely where needed and the soil in the beds can be modified to the needs of whatever is grown there. Their added height makes weeding easier.

the only available ground covers. But annuals and perennials when closely planted are equally effective and far more colorful.

For shady areas try the weed-excluding groundcovers: coleus, impatiens, caladiums and begonias. Set out young plants 6-10 inches apart, mulch between the plants, feed liberally, water regularly and in a month the area will be a solid mass of color with nary a weed showing. For sunny sites, use thickly planted petunias, marigolds, zinnia, ageratum, nasturtiums and allysum.

The most widely used ground cover, the lawn, consumes lots of time: it has to be mowed, raked, edged, fertilized and watered. By doing these various chores at the proper time and with proper planning, lawn care need not be a time trap. Mowing the lawn before the grass gets too tall eliminates the need to rake the clippings. Ever better, use a mower with a grass-catching bag. The caught clippings can be used as a mulch in another part of the garden. Or if a grass mulch can't be used, compost the clippings.

Here in the northeast, lawns will recover even if they are not watered for months at a time. If you must water during a dry spell, apply it where it will do the most good — on vegetables, annuals or newly planted shrubs or perennials.

Eliminate lawn impediments and you facilitate mowing. Shrubs and trees isolated in the middle of the lawn, sun dials, bird baths, statuary, sharp right angles on borders — these are all what I call lawn impediments. In one way or another they require tricky maneuvering with the mower to cut the grass around them.

Mowing gets completed more quickly when there are long runs without the need to back up, go forward, back up, go forward. If you must have lawn ornaments, put them in beds and borders that don't require mowing. An if you absolutely must have trees and shrubs in the middle of the lawn, enlarge the area around them to islands planted with annuals and perennials. Or expand an existing border to

continued

photos by Walter Chandoha





Left: Nowhere is it written that flowers, herbs and vegetables must have separate gardens. Mixing them in the same garden saves space and helps control bugs. Colorful flowers break up the monotony of masses of greenness of vegetable gardens. Cabbage, spinach, lettuce; chives in flower; pansy, dianthus, petunia, lady's mantle, foxglove. **Right**: Use groundcovers to minimize maintenance. Impatiens grows in both sun and shade but ajuga, myrtle, celosia, caladium and pachysandra do best in shade. Cerastium, alyssum and most annuals thrive in sunny areas. The idea is to plant them so thickly that weeds cannot grow through the groundcovers.



photo by Walter Chandoha

To keep deer from eating crops they like, cover rows with half circles of wire fencing, with a small 2-in. by 4-in. mesh. Fencing is 4, 5 and 6 feet tall. The small row-wide sections can be easily removed as necessary to cultivate or harvest.

Better Planning Saves Time

Thinking before gardening is also a big time saver. There are things we do in the garden that are completely unnecessary, pointless, thoughtless, useless, unserviceable and maybe even worthless. Yet, every gardener at sometime or another has gotten involved in one of these fruitless projects, where if more thought had gone into it, it would never have been started.

One such project for me when we moved to our farm here in western New Jersey was to plant what I envisioned would one day be an orchard — peaches, apples, plums, apricots. Six trees of each. Why buy fruit, I thought, when I could grown my own. It took time to study garden catalogs to determine which trees to order. It took time to find the best location for the trees. And it took a lot of time to dig holes, enrich them and plant the trees. Then the saplings had to be encircled with wire cages to protect them from our destructive deer; later as the trees grew bigger they needed pruning. And spraying. When I discovered what a time-consuming activity spraying was, after two seasons I gave it up and limited spraying to dormant oil in March.

Did I harvest fruit? Sometimes. Was it worth the effort? No. Did I learn anything? Yes. I learned that one peach tree (the only remaining tree of all the 24 planted) can produce more fruit than a family of 8 can eat. Spraying is unnecessary as is yearly pruning. If I get around to hacking out some branches every 2 or 3 years, I'll still get some pretty good fruit — maybe not unblemished but still edible, and certainly freezable and "jamable." I concede that if I followed "approved" spraying and pruning procedure I might get more peaches but how many can we eat, freeze and put up in jam.

Planting my "orchard" is an example of not thinking about a garden project before doing it. Had I thought about how much time planting and maintaining fruit trees consume, I wouldn't have planted them.

More positive, is my current project with ornamental grasses. Some years ago my good friends, the Rileys, gave me some clumps of zebra grass, which I planted in a specially made island in the middle of the lawn. After three seasons of developing this ornamental grass island I began to appreciate the full potential of these plants. I visited nurseries and botanical gardens to see how other cultivars grow. I read descriptions in books and garden catalogs. Now I have 12 different varieties of ornamental grasses growing in different gardens on my farm and all in one way or another save me time. The only care they require is cutting the old stalks back early in the spring before the new growth starts. They grow in each garden formerly occupied with perennials or annuals that needed more care than the grasses. They need little fertilizing, they tolerate deluges and droughts and the resident deer leave them alone.

Granted, it has taken a lot of my time to learn about ornamental grasses, to buy them, to plant them. But now that the various grasses have matured and are reaching their full potential, the time I spent is paying dividends. The grasses have enhanced my gardens and now take little of my time. I took the time to save time.

— Walter Chandoha

include the isolated specimens. Mow in long sweeps to eliminate time-consuming maneuvering.

Another way to save mowing time is to install ground-level strips of concrete or brick between the lawn and beds or borders. With these strips in place you can mow in a straight line parallel to the beds. An added bonus: with mowing strips, you're less likely to damage plants in the beds with the mower.

Even with the mowing strips in place and lawn impediments eliminated, taking care of lawns can be a time trap in the spring when frequent rains and cool weather speeds grass growth necessitating frequent mowing. Solution: convert most of the lawn to a wild flower garden. Before you do this, however, check with your neighbors and the township; some people consider wildflowers to be weedy jungles.

On the flip side of too much rain and fast grass growth is no rain and brown lawns. Don't waste your time watering long-established lawns when they brown up during a drought. Here in the northeast, lawns will recover even if they are not watered for months at a time. If you must water during a dry spell, apply it where it will do the most good — on vegetables, annuals or newly planted shrubs or perennials.

When you water during dry spells, or anytime for that matter, don't get into the time-trap of waving the garden hose over the plants for 5-10 minutes and feel they've been adequately watered. If you must use overhead irrigating, connect the hose to some sort of oscillating sprinkler, turn on the faucet, then go do something else. Even better, use a soaker hose which slowly emits water along its entire length at ground level. With ground-level irrigation, little precious water is lost to evaporation. Still better, take the time to install some sort of an inground drip irrigating system. Yes, it will take time to install the system but here is another case of taking the time to save time. Taking time to later save time is the biggest time saver of all.

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Nationally known photographer/writer Walter Chandoha is a frequent *Green Scene* contributor.



Stealing Time To Garden

by Sally McCabe

How can I ever expect to write an article about finding time for gardening if I don't even have time to finish a sentence? I have to rob from Peter to pay Paul as it is, since my garden is a block from my house, in a community garden (Seedy Acres) I share with some 50 other people, and to get their I have to either haul two small kids with me or guiltily sneak away when they're not looking.

***What I do** (sanctioned and semi-sanctioned time-eaters)*

- Work fulltime — 35-60 hrs depending on the season
- Raise two kids, 3½ & 7
- Volunteers 5 hrs/wk for the American Community Gardening Association's national office
- Occasionally write articles
- Garden
- Visit my parents in the country.

***What I shouldn't do** (guilt-inducing time-eaters)*

- Volunteer seasonally to run neighborhood street tree program
- Coordinate a community garden
- Get on the Internet
- Try to give up coffee more than twice a year
- Keep a garden journal
- Visit my parents in the country
- Work fulltime
- Write articles.

***What I absolutely should* never *do** (no mercy time-anihilators)*

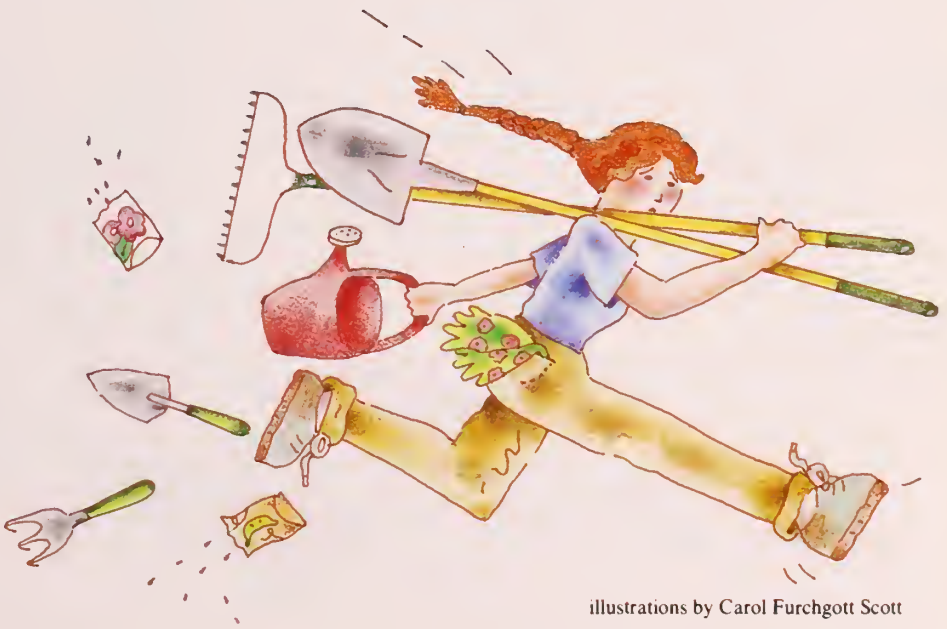
- Get addicted to TV programs. Life fell apart when they moved Star Trek to 6 pm
- Get hung up on perfection
- Read novels.

What I end up not doing

- The house is a mess; kids must have plenty of summer clothes and changes of underwear, so we can hold off doing laundry for weeks if necessary; the schools don't get their share of parental volunteertime, so they get us in fits and spurts; the kids go to school from 8-6, more than enough time to pick up exotic neuroses instead of the more familiar bad habits of their parents.
- I used to can hundreds of quarts of produce each year. Now I'm lucky if I can get enough pesto put away to last the winter. But since I don't cook anymore, nobody seems to notice anyway.
- We don't have friends anymore. An old gardening friend (who now obsesses over sailboats), observed that when people get kids they stop finishing sentences, and can only converse with other parents. If you can't get an idea across in three words or less, don't waste my time.
- No time for advocacy — there's no longer the time to worry about: tree dying of air pollution; nuclear winter; recycling mixed paper; irradiated food at the supermarket; the rainforest; neighborhood politics. Anything accomplished here gets done over lunch, along with reading, socializing, and clothes shopping.

How I do it

- Take vitamins
- Don't cook
- Pack lunches and do laundry once a week
- Prioritize. Nobody can do it all, and nobody should be expected to, except your mother.
- Find a garden partner. I've been very lucky in this department, and have found two wonderful people to share my gardening obsessions. One is Alex, a 15-year-old who has had a plot in our community garden for eight years. He's very handy with tools, and never afraid of hard work. He and I played a game this past summer called "visual impact." We would spend several hours each week, usually a Friday or an evening stolen from other activities (like jobs, Star Trek, and family) doing something that would make a lasting visual impression in the garden — fixing a fence, erecting a picnic table, building a raised flower bed near the gate.
- Take advantage of synergy: two people working together can accomplish more than twice as much as two people working alone, provided they don't talk too much. Angela, my other garden buddy, comes to the garden with her two kids, ages 3 and 5. Her kids keep my kids amused, and vice versa, freeing up Angela and me to amuse each other by working our tails off in our own gardens.
- Take advantage of midnight anxiety. If you're going to lie in bed awake worrying, you might as well use the time to sort



illustrations by Carol Furchgott Scott

seeds, make lists, keep a garden journal, write articles, or do the laundry you've been ignoring for the whole of the harvest season. A whole section of my garden got new fence and a raised border when I was pregnant with my first, and went through three months of being awake to watch the sun come up. Or you can garden in the dark; gardening takes on a whole new perspective when viewed by moon/street light.

- Keep tools in the garden, so you don't have to bump around the house at midnight when you're on your way to garden by street light.
- Take advantage of your family's good graces; lie a lot. Say "I need some parsley for dinner; I'll be back in five minutes," or "Somebody needs to walk the dogs; I'll be back in 20 minutes." With luck, it'll be at least a half hour before they miss you.
- Start seeds in the office; this has a double advantage of additional lights to help



illustration by Carol Furchgott Scott

combat SAD (Seasonal Affective Disorder).

- Move the garden closer to home, so you can garden during commercials or between loads of laundry.
- Prioritize (you can't do this often enough). You know you truly have graduated to adulthood when you finally move out the woodland flower bed and replace it with a sandbox and picnic table. This year's challenge will be learning to deal with a puppy who eats everything.
- Garden in flats. How many millions of dollars go to waste each spring when we bring home our flats of impulse shopping and then don't have the time or space to plant them? Pre-puppy I used my back yard as a holding pen for plants to be used on my job. It took me years to admit that these flats and flats and flats of blooming annuals were a thing of beauty to be appreciated on their own merit. They could be arranged and rearranged for impact in the yard; an ample supply of cut flowers make great Mother's Day presents from the kids, since the plants will never get planted before the end of May.
- Move to the city. Each stage of my adult life has been a tightening up of space: From a 100-acre farm in Kimberton with orchard, vegetable garden, woodland garden where I spent an idyllic year, to a hillside one-quarter acre in Valley Forge, to a 400-square-foot yard. I keep assuming that if I have less area to work with I'll be more able to keep it organized. Unfortunately, it hasn't worked in the least for me. Less space hasn't translated into more structure; what it has done is pile more activities and junk on top of activities and junk there's already no time or space for.

Where my country kitchen used to overflow onto the back porch with produce, my city kitchen sometimes finds the dryer full of squash because company showed up and there was nowhere to sit. Stanley, who never had a country kitchen, has found the solution for no space/no time. One day I came in to find the kitchen table turned over on its side; I assumed that the legs had finally given under the weight of bounty. No, he reassured me calmly, for four days running there had been progressively smaller clear spaces to eat. Since it was very difficult to pile things on an inverted table, we would just turn it up for meals, then flip it over again when we were done eating.

- Set up visiting hours when friends are welcome, and stick to them. Too many stolen hours are spoiled when a well-intentioned neighbor stops by to chat or admire the garden. Rehearse in front of a mirror, if necessary, until "I'm not really being rude, but if I don't finish this job five minutes ago and get home, my dog will need emergency surgery" rolls easily from your tongue. Or try "Visiting hours are on Saturday from 2-4." Or learn to scowl fiercely. My friend Libby has perfected the deep-throated growl which she finds quite effective. If none of this works, do as much gardening as possible after dark, and install shrubbery to lie down behind when you see someone coming.
- Learn to say NO. No matter how tempting the offer of 15 heirloom varieties of tomato plants might be, they'll never be of any value to the next generation if they spend the summer in a flat in the yard, where the dog eats first the labels identifying each priceless and valued variety with year of origin, then the anonymous plants themselves.
- Keep a good attitude — it wouldn't all get done even if I worked parttime and had a host of 15-year-olds at my beck and call. As one of my garden idols, Alta Felton, explains when people stop at her house instead of her garden, "I don't keep house — I keep my garden."

Dealing with the kids

- Find an acceptable place for kids to pee. A least-favorite but very familiar scenerio: you've finally convinced the kids they'd love to go to the garden. They've piled all their toys into the wheelbarrow, along with your tools, seeds, etc. Guilt makes you include the dogs in the outing, since they haven't been walked today. Out the front door, taking two trips back, first for the garden keys and hand trowels, next for a water bottle for thirsty kids. Holding hands while balancing tools, dogs and kids to cross the street, you finally reach the garden, locate the key, open the gate, release the dogs, release the kids, remove the hand trowels, seeds and Power Rangers from your pockets, unload the plants from the wheelbarrow, line up the pots for transplanting into the perennial bed, prepare to dig the holes — and somebody has to go to the bathroom. Put down the shovel, re-leash the Power Rangers, put the kids back in the wheelbarrow, seeds and dogs back in the pocket, and head off pell mell for the house and the security of a bathroom. Today's prep time: 45 minutes, actual gardening time: 45 seconds.
- Appreciate the wildlife. Nothing keeps kids busier than the possibility of snakes, toads, and very large bugs. Install a small pond with cheap goldfish if you have to keep them excited about visiting the garden.
- Garden after the kids go to bed.
- Combine chores — walk dogs to the garden rather than to the park.
- OR take a plot near the park or deli, so you can garden while the rest of the group plays or shops.
- Set up "Mom's Night Out" and fight for it to the death. This is the one night a week when Mom can go to the garden by herself without guilt.
- Prioritize. Take a lesson from my cousin Erin, who has three kids, works 30 hours, is working on an advanced degree in Nursing, and still manages to landscape her yard. The motto that hangs on her fridge: "Done is Better than Perfect."



Shanna (age 7) recommends how to live with children and garden, too

- The kids can help with the gardening or
- You can send the kids away to Mom-mom's.
- Take the kids to the garden and give them places to play like a sandbox or picnic tables or their own gardens.
- Be extra nice to them or they won't want to go to the garden with you anymore.

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Sally McCabe is an education specialist with PHS's Philadelphia Green program. In her "spare time" she raises two children and occasionally gardens.

photos by John P. Swan

Time and Talent:
A Recipe for an Uncommon Garden

by John P. Swan

Take 3½ open acres, enclose it with tall woods, drop a house in the middle, add one horticultural scientist, stir for 35 years.



Specimen Korean willows and informal plantings soften the hard lines of the pool.

Dick Lighty is 25 feet in the air, perched precariously among the twisting branches, his Felco pruning shears flashing in the cool February sun. Reaching as far as his arms can go, the weeping branches of his specimen willow trees tumble one by one to the crisp snow cover. Safely on the ground, Sally Lighty gathers the glistening strands into neat bundles.

The willows, *Salix pseudolasiogyne* collected by Lighty in Korea, are being severely pruned, or pollarded, leaving the large branches at the top naked and warty. Later, wire-like branches will sprout creating a silvery waterfall of foliage to the ground. "I enjoy pollarding because it puts the garden maintenance where it counts. I guess it brings out the gardener in me, too," explains Lighty, a Ph.D. in plant breeding and genetics.

Still fresh from the stimulating academic environment of Cornell University, it was the scientist in Lighty, however, that dominated his gardening interests 35 years ago. That's when he and Sally bought their seven-acre dream property in wooded countryside near the Delaware line and embarked on a roller coaster horticultural adventure. Three springs in the woods fed





At left: Dick Lighty prunes (pollards) his prize 25-foot Korean willows, annual winter maintenance that pays off in summer beauty. **At right**: Artful combinations of dark green native *Pachysandra procumbens* and its Asiatic cousin *Pachysandra terminalis* 'Variegata,' show off the beauty of contrasting groundcover foliage.

both a flowing brook and moist rivulets that wound their way through the property providing an unspoiled sense of place and giving rise to the name Springwood. Although the Lightys had no master plan at the time, the presence of water, like money in the bank, held out exciting opportunities for building gardens.

"Garden making, like gardening itself, concerns the relationship of the human being to his natural surroundings," says Russell Page in his 1962 classic, *The Education of a Gardener* (William Collins Sons & Co., Ltd., London). "To make a garden is to organize all the elements present and add fresh ones, but first of all absorb as best one can all that can be seen, the sky and the skyline, the soil, the colour of the grass and the shape and nature of the trees. Each stone where it lies says something of the earth and underlying structure; and the plants growing there, whether native or exotic, will indicate the vegetable chemistry of that one place." Page was writing these lines in England at the same time Lighty was beginning to put the ideas into practice. At that time Springwood was a place, not a garden. In fact, it would be a few years before the true outlines of a garden would begin to emerge.

New perennial beds, planned to be extensive, were planted in manageable stages, not all at once. Such self control! What gardeners exist that haven't, at one time or another, let their enthusiasm outstrip their ability to cope?

The plant as an object

In an extension of his consuming academic interests in lily breeding, Lighty did what came naturally at first. He planted lilies: rare cultivars, breeding stock, the gamut. Thousands of them. With the dramatic explosion of color, it must have resembled a Penn State University test plot, but for Lighty it was a collector's research garden.

His enthusiasm didn't stop there. The fascination with the plant led to a flirtation with rock gardens where he "hauled rocks all over the place" and jammed "little plants" into every nook and cranny. A rectangular nursery was laid out to house unusual specimens. In fact, he says he started dotting plants all over the place. Clearly, the objects of interest were the plants, their form, flowers, culture. Later he would learn what to do with them and a garden would begin to take shape.

The gradual process of garden making begins

"The place looked like it had been hacked out of the woods," Lighty remarked. The sharp edges magnified by the towering trees that stopped abruptly at the grass line defined the sunny open space in harsh terms. The Lightys set about to soften the hard lines by creating naturalistic transition zones from forest to field. Observing what nature does to edges when left alone, studying land and soil characteristics, applying a professional's knowledge of plants, the process of garden making began apace.

Conifers were used for screening and filling in. The acidic soil was a natural for rhododendrons and kalmias. Native hydrangeas, corylopsis and other lower-growing plants filled the front ranks. The result: A natural-looking understory and edge-of-the-woods softness that created a gradual transition from the vertical lines of the tree trunks down to the horizontal grass line. The variety of textures, colors, and forms also provided four-season interest as they matured and filled in.

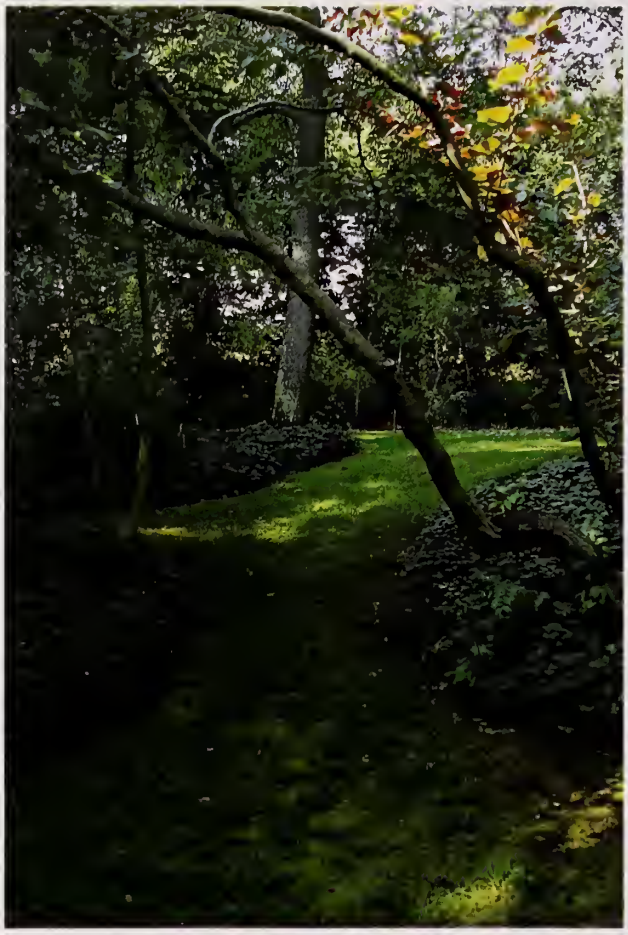


photo by John P. Swan

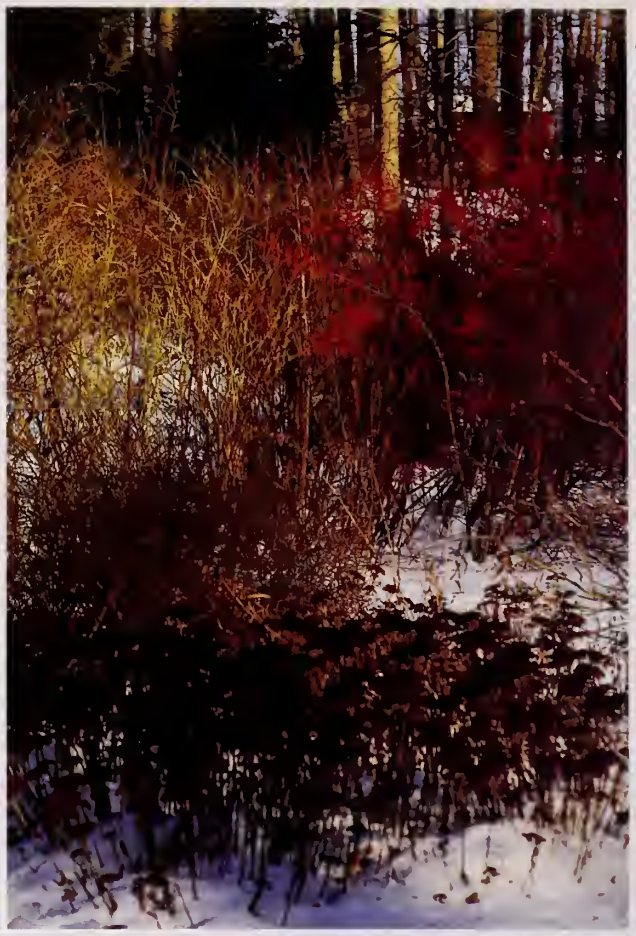
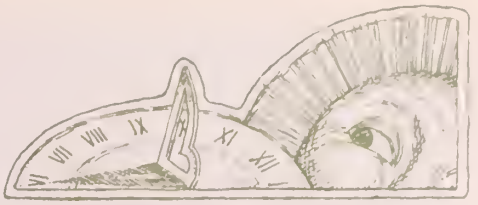


photo by John P. Swan



photo by Ken Druse

Top left: Cool, green, tranquil, the woodland strolling garden is a refuge on hot summer days. **Top right**: Brilliant fruit of winterberry *(Ilex verticillata),* yellow stems of osier dogwood *(Cornus sericea)* stand in sharp contrast with spent flower heads of sedums in foreground. **Bottom**: Lighty's symbolic meadow started as an experiment in a high interest garden using meadow elements.



Meanwhile, Lighty, in one of his early experiments in reducing long-term maintenance, subjected himself to a labor-intensive, back-breaking exercise in soil preparation for a large area of daffodils, pachysandra and epimediums. The hard soil was dug more than a foot deep, painstakingly screened, amended and replaced. "I reasoned it would save time and muscle power when the bed would need redigging ten years out." The work, of course, paid off, but in a different way. The plantings thrived. "I never touched it again. So much for my first bright idea," laughed Lighty.

Less maintenance, more fun

The idea of designing a garden that would reduce excessive and non-productive maintenance not only took hold, it became a key element as the garden expanded. This was important. He had other things to do. At that time, Lighty managed the Longwood Plant Research Program and soon would join the University of Delaware Plant Science Department running the Longwood Graduate Program in Public Horticulture Administration. Later, he would be appointed director of Mt. Cuba Center for the Study of Piedmont Flora.

Time saved in routine work, he reasoned, would allow him to save, enjoy the precious hours spent on the productive side of gardening. All beds would be designed with naturalistic flowing lines with no sharp corners or intricate shapes so as to allow one pass of the mower. Mulching beds to cut weeding time was a temporary expedient soon replaced with a better idea: to cover the earth with tightly packed plants, ground covers, etc., and let them inhibit weeds naturally.

New perennial beds, planned to be extensive, were planted in manageable stages, not all at once. Such self control! What gardeners exist that haven't, at one time or another, let their enthusiasm outstrip their ability to cope?

At the University of Delaware, Lighty relates, he learned the value of proper, responsible use of herbicides to eliminate unwanted growth safely without disturbing the soil. His avowed "love affair with garden machinery" also has played an important role in shaving labor time. Tillers, leaf mulchers and other equipment to plow, haul, and mow all reduce hand work. As Lighty puts it, "I look hardest at the tasks demanding the most time, adverse conditions that add work, but return little satisfaction. I try to be creative in applying brains and technology to garden problems."

Three garden concepts evolve

After thoroughly exploring their evolving interests during these early years, the Lightys decided on three overall planning concepts that were to guide much of the garden growth over the succeeding years. Now they could combine Lighty's passion and professional knowledge about plants into a blueprint for the great garden that was to come. The three-part focus would be on outdoor living gardens, gardens for viewing at a distance, and strolling gardens.

Gardeners, like plants, need nourishment, to exchange ideas, to learn from others. Plant societies, lectures, reading and garden visits have been key sources of a new awareness of using plants effectively in garden settings.

The Lightys, who would rather be outdoors than in the house anyway, constructed three private areas around the house for living and dining at different times of the day. The smaller areas provide shade and intimacy and are ideal for summer breakfasts while listening to the morning chatter of the birds. The largest, most spectacular, however, is a pool garden connected to the house with flagstone paving. The rectangular shape of the pool, an intrusive geometric element potentially in conflict with the naturalistic surroundings, needed to be tempered with trees and plantings. The pool garden with its demanding features was the only area that the Lightys planned on paper. Here Lighty created dramatic effects by using plants found near or suggestive of water. The grouping of three Korean willows cascade over one corner. Large, striking clumps of blue Siberian iris 'Caesar's Brother' provide strong vertical lines with their tall thin leaves. Other blue-toned low-growing plants and informal hedging separate the stylized pool area from the open space beyond, but don't block the distant view.

The long views from the house and other vantage points called for a different kind of gardening strategy. Gardens to be viewed from a distance needed bold color effects over the seasons, plants with large leaves, architectural shapes. The edge of the woods' plantings were the first of several examples of this interesting concept. Lighty, however, amusingly credits his wife's restraining hand with moderating his enthusiasm for dotting the lawn in between the specimens. Sally's admonition, "Don't plant anything in the middle of the lawn," paid off.

The third important concept, strolling gardens, led to the development of some of the loveliest, most pleasurable garden areas. A highlight today is their intimate woodland retreat reached only by crossing a plain board bridge over the meandering stream. It's an Alice in Wonderland experience, leaving the open, sunny world behind you, entering the cool, calming environment reminiscent of unspoiled, lush piedmont woodland. Here, Lighty could indulge in his lifelong love of native plants of the woodland variety in an unparalleled stream setting. He enhanced some spots with open, spreading forms of witch hazel *(Hamamelis virginiana)* and redbud trees including the stunning purple leaf *Cercis canadensis* 'Forest Pansy.' The banks of the stream were populated with countless native species for hundreds of feet. Among his showiest favorites were selected varieties of foamflower *(Tiarella cordifolia); Trillium grandiflorum;* bluebells *(Mertensia virginica); Phlox stolonifera;* and the dwarf crested iris *(Iris cristata).* A dozen different fern species, primulas, giant skunk cabbage *(Symplocarpus foetidus)* and jack-in-the-pulpit *(Arisaema triphyllum)* filled in the wet areas and nestled next to the rotting logs. A moss-speckled path twisted its way through the leafy ground cover. In spring, the woodland literally explodes with rivers of color as countless wildflowers celebrate the new season with their delicate blooms. The art was not just to use native plants, about which Lighty has considerable expertise, but to use them in a manner that approaches nature's own.

"Two Worlds, One Garden" is how Ken Druse described Springwood in his recent book (with Margaret Roach), *The Natural Habitat Garden* (Clarkson Potter Publishers, New York, 1994). Druse is referring to Lighty's dual horticultural personalities where his passion for American piedmont natives shares the stage with his love of the exotic plants of Asia. Thus, another strolling garden was developed on the opposite side of the property to the woodland garden presenting a strikingly different environment. Populated primarily with Asiatic plants, trees and shrubs, some that Lighty collected on a Longwood Gardens trip to Korea in 1966, it undulates along the woods' line with pathways leading to secluded areas. Korea stimulated Lighty's interest in woody plants, and it's here that one sees sweeps of *Hydrangea* 'Blue Billow,' magnolias, bamboo, and striking azaleas. But the groundcovers really catch the eye



photo by Richard W. Lighty

Lighty's symbolic meadow, an island garden sporting spectacular grasses and giant prairie plants, is a Springwood showpiece in late summer.

swirling around under all this beauty. A stunning tapestry of native and asiatic pachysandra (some variegated), sweet woodruff *(Galium odoratum),* and ivies happily compete in a colorful carpet. In the three-and-a-half-acre garden of surprises, this jewel of an idea has broken new ground, added a new dimension to the creative use of ground covers.

Ask the land what to do

A wet runoff from one of the springs kept the area constantly moist. Maintaining the lawn was frustrating. The grass looked like it was struggling in intensive care. "The land was trying to tell me what to do," declared Lighty. "Once again I was able to solve a garden problem by joining with, instead of fighting nature." So the Lightys' next step in their evolving garden was to plant this watery corridor with moisture-loving plants: shrubby willows, chartreuse and red-stemmed selections of osier dogwood *(Cornus sericea),* winterberry holly *(Ilex verticillata),* iris, liriope, and others. Today it serves as a natural division for different garden areas. It's a magnificent show in the bright winter sun with vivid yellows and reds of the dogwood twigs topped by brilliant red berries of the deciduous holly.

Growing along with the garden

As gardeners we are not something apart from our gardens. Rather, it seems, we are joined in a natural partnership where human nature is bonded with botanical nature in a long-term relationship. We grow along with our gardens. Nowhere is this more self-evident than at Springwood.

Lighty is quick to credit his personal growth to knowledgeable friends and professionals who broadened his understanding of what beauty is in a garden, stimulated creative approaches to design, and piqued his curiosity about the diversity of elements that make a garden.

Bill Frederick, veteran gardener, landscape architect and author, suggested how to cope with complexity in a large garden, to plant in large dramatic groupings instead of seeing the plant as an object. Philadelphia landscape architect Conrad Hammerman illustrated how to create interest through contrasts, harmonies of texture and color, and through the startling effects of discontinuity. The Brazilian genius Roberto Burle Marx instilled an understanding of bold, rhythmic sweeps of color and texture in mass plantings. Gardeners, like plants, need nourishment, to exchange ideas, to learn from others. Plant societies, lectures, reading and garden visits have been key sources of a new awareness of using plants effectively in garden settings.

Just as important is what not to do, advice only a friend can get away with. Lighty was escorting J. Liddon Pennock, Jr., of Meadowbrook Farm around the garden. On leaving he touched Lighty's shoulder and with a twinkle in his eye remarked, "Don't plant any more Japanese pachysandra!" Lighty, no fan of pedestrian plantings, who would prefer to plant garden aristocrats, knew exactly what Pennock meant.

Now, the many garden areas were maturing, filling in, becoming connected to each other. Where Lighty had earlier planted groves of stewartia and magnolia trees, all sorts of ground covers now flowed around them. Serpentine pathways were cut through the cool green fullness creating tranquil "secret" glens. The edges of the paths became new planting areas for shade-loving specimens.

Grasses on a grand scale

In a dramatic contrast to the quiet, woodsy glens stands a sun-drenched botanical blockbuster: a garden of ornamental grasses and herbaceous titans of the prairies and meadows. Up ground from the swimming pool in full view of the house, it's a collection that commands attention. In this highly original 'symbolic meadow," Lighty uses combinations of plants as meadow elements featuring their feathery textures and flowing forms. A huge joe-pye-weed *(Eupatorium fistulosum)* tops 10 feet in its rusty red bloom. Purple-flowered tall ironweed *(Vernonia altissima)* reaches for the sky. Dominating everything, an exotic herbaceous Asiatic aralia towers umbrella-like over the other giant plants. Complementing these monsters of the meadow are giant clumps of eulalia *(Miscanthus* spp.) and other grasses, the ballet of the ensemble as they bend in the breeze. A stylized collector's garden created with a flair for the spectacular, it is a Springwood highlight today.

Gardening as art

Like a butterfly skipping along, these are snapshots of the Lightys' still-evolving garden complex. With dozens of garden areas and niches to explore, filled with over 5,000 different plants, some rare, unusual or just special, it's a place where botany and horticulture coexist in harmony. But, to Lighty musing over the 35 years of experimentation, personal growth, success and yes, failures, the real reward is in "the enjoyment of the whole process." It's taking care of the garden, rooting for a plant when it makes it through the winter, digging a good hole, reveling in the bursts of beauty through each season, celebrating the life in the garden.

William Robinson writing in 19th century England believed that, "The true garden differs from all other arts in that it gives us the living things themselves and not merely representations of them in paint . . . "

"You are part of the art," adds Lighty. It's learning to control the plant lover's "chaotic tendency" to plant one of this and one of that; creating beauty from a palette of plants and using them in the right combinations of color, texture and bloom time. "You are the creator and director," he sums up.

This, in short, is the Lightys' accomplishment, their time-tested recipe for transforming three and a half acres of unadorned open space into horticultural art . . . an uncommon garden!

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John Swan is a frequent *Green Scene* contributor who, along with his wife Ann, gardens in West Chester. John Swan chaired the Horticultural Classes for the 1995 Philadelphia Flower Show.

photo by Ira Beckoff



Organized chaos describes the seven to 10 volunteers working in the planting beds north of City Hall. Walter Fisher (left, standing) is one of 12 team leaders.

Giving Time in Gardens Not Their Own

by Kathryn T. Newland

The Pennsylvania Horticultural Society thrives with the energy and efforts of more than 2,500 volunteers. They do everything from serving on the Council to running the Competitive Classes at the Flower Show; they help plant at City Hall and they fundraise; they assist in the Library and answer the Hotline. Hundreds of jobs — they do them all. For some, gardening is what the Society is about and here are five ways volunteers spend time in other people's gardens.

Patsy McLaughlin glides down the sidewalk in her garden clogs toward the Ribbon of Gold work group. Since 1989 Patsy has been leading a team that helped to beat back the 9,400-sq.-ft. jungle on the neighboring terraces of the abandoned Eastern State Penitentiary along Fairmount Avenue in Philadelphia.

Gardening is no stranger to her. She learned with her father early on when he worked in the long, narrow garden next to their two-family house in New England. Her father took up golf





Top: Visiting five to eight street-front gardens on a hot, steamy day is not unusual for the 400 City Gardens Contest judges who go, in teams of three and four, to neighborhoods throughout Philadelphia in July and August each year. **Bottom**: Nancy Cunningham, Marc Zaharchuk and Connie Rice, three Friends of the Azalea Garden, work on Saturday mornings over eight months to remove litter, to weed, water, and deadhead spent flower blooms. The Friends have contributed $40,000 worth of volunteer labor over the past five years.

and more kids came along and that garden faded away. Patsy's curiosity flowered again 15 years ago when she moved into her first "garden" apartment and discovered daylilies and flying saucer morning glories.

Patsy loves experimenting with a variety of seeds in the Ribbon of Gold meadow at the Penitentiary. "It's just so magical," she says, "stick seeds into the soil and soon there's a huge tangle of vines and flowers." Many of her experiments have succeeded in the six seasons of Saturdays that she's been involved.

Multiply Patsy by 2,500 and you begin to get a partial picture of the Society's volunteers and some idea of the time they contribute. When asked to reflect on why they participate, Flossie Narducci, Special Events/Volunteer Coordinator for the Society says, "People love plants and flowers, and it's fun to be part of an organization that makes them a priority. They love the idea of working on a Show that draws 225,000 people each year and has gotten a reputation for being the best of its kind. They get a lot of satisfaction from being able to help turn junk-strewn lots into beautiful gardens whether they're on the fundraising or planting end. Yeah, they know the Society is a winner, and they like being on a winning team and knowing their efforts are going to make a difference in individuals' lives and in the community at large."

Certainly there's an array of opportunities for volunteers at the Society but spending time in the garden is #1 on lots of people's wish list. Here are five ways they fulfill their wishes.

City Gardens Contest judges

The City Gardens Contest celebrates its 20th anniversary this year. Hundreds of city gardeners have become part of a larger community, bonding with neighbors, with judges and other contestants over the years. As many as 400 volunteers from Philadelphia, from its suburbs, and from towns like Princeton, Wilmington and Reading join together to judge City Gardens every summer. In July and August, teams of three and four judges often spend several hot, steamy days visiting more than 500 gardens in Philadelphia's neighborhoods' some postage stamp-size and some community gardens that cover an entire city block Some flower gardens and some vegetable; some city blocks sporting barrels of cascading annuals or a narrow Belgian block

photo by Ira Beckoff



Seventy volunteers planted impatiens throughout Philadelphia's City Hall's courtyard in 1992, the first year for this annual planting event. Vinca is now planted in the two sunnier beds and provides a spectacular show for the hundreds of passersby.

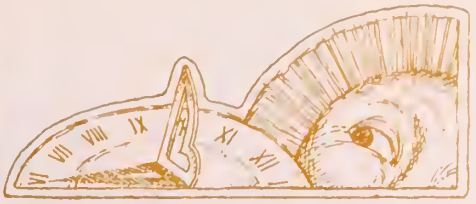
wall covered with sun-reaching flowers.

Diligently the judges write notes and score the gardens: the notes are tactful but also provide information as well as kudos: "Needs more variety. Impeccably maintained." In one day, they might visit seven or eight gardens: a major, major perennial border or a beautiful Japanese garden with perfectly grown ornamental grasses, delicate water mobiles and pools filled with waterlilies, tended by a father and his wheelchair-bound son. They do not ponder long on the point score at the Japanese garden: a 10 (the highest possible score) for horticultural practices. Another city garden, built with a pergola, wooden deck levels, a pond, and an exquisite collection of container-grown plants. Definitely a winner, and the judges beam at the Awards ceremony in September as their gardener goes to the stage to receive an award. Nearly 700 people come to see who won; to cheer on the winners; and to glean new ideas from the slides of the award-winning gardens, that number almost 150.

Why do they do it? Said one judge: "It gives all my vices an outlet: I'm nosey and I love climbing onto people's roofs or cruising through a community garden to see how someone grows tobacco; I'm judgmental so I get to score everything in sight; I'm kind of bossy and sort of a teacher so I love sharing my ideas; I'm larcenous so I love stealing people's ideas. And besides, I love sitting and sipping the lemonade and iced tea with the judges and gardeners. Zero guilt: I'm making a contribution."

Friends of the Azalea Garden

A frigid April morning at the Azalea Garden in Fairmount Park. The task: to plant 172 landscape rose bushes in three hours. Are friends of the Azalea Garden up to it? Absolutely. They arrive ready to work, as they do every Saturday morning



for eight months of the year. This core group of 35 mostly neighborhood people along with interested suburbanites averages 600 hours of fun in a season: planting, weeding, deadheading and watering.

"I've got a tiny backyard; here I can spread my wings. I'm learning about a different kind of gardening," says Don Cleaver, "and besides I enjoy anything that makes my neighborhood look good."

One of the most enthusiastic volunteers, Mark Zaharchuk, who chairs Friends of the Azalea Garden, spends time other than the regularly scheduled Saturday to water during dry periods. Cheerful even about picking up trash, the Friends love and enjoy the beautiful garden that dazzles visitors with three seasons of blooms since it was rehabilitated in 1989 by the Society. Over those five years the Friends have contributed time valued at more than $40,000.

City Hall planters

In mid to late May, at least 60 people, trowels in hand, gather to plant annuals in the courtyard and some planting beds around Philadelphia's monumental City Hall. The Society recruits volunteer gardeners from all over the city and beyond, including at least 30 from PNC Bank, financial sponsor of the annual event. Even interested passersby are invited to dig in. Mayor Edward Rendell; Fairmount Park's executive director William E. Mifflin; PNC Bank's executive vice president J. William Mills, III; and the Society's president Jane Pepper all pitch in picking up trowels to pop in a few plants.

The first year, Samuel B. Huey School students whipped through four of seven planting beds like wildfire in a dry forest. They were helped by a passing security guard who couldn't resist "planting just one." With more volunteers due to arrive, the kids went back to school and some of the remaining 6,000 annuals were saved for the next volunteer crew to plant. A concert staged by the radio station B101 played throughout the second year just outside the courtyard so folks planted to a beat. Two homeless, recovering addicts enthusiastically joined in and learned how to plant. Last year, the third year, constant rain was a challenge for the dedicated who came to work.

A landscape contractor could easily plant these annuals but where would the enthusiasm, camaraderie and happy hubbub happen if planting City Hall wasn't a volunteer effort? Says Patti Lipschutz who has come

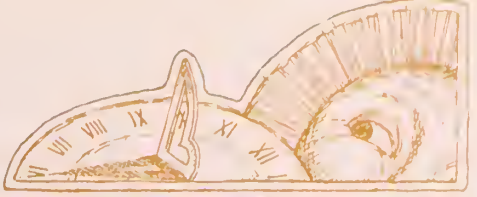
photo by Barbara Olejnik



photo by Kathryn T. Newland



Top: Graduates of Tree Tenders, a nine-hour training course covering the effects of urban stresses on trees, tree identification, planting pit care, pruning and planting, are active in West Philadelphia's Powelton Village neighborhood. Here three volunteers record species and height during an inventory of the neighborhood's trees. **Bottom**: Rosina Feldman spends an enormous amount of time weeding, watering, deadheading and transplanting at the four beds in the 1900 block of Spring Garden Street. These beds, in the middle of a 6-lane highway, have the look of carefully tended backyard perennial gardens. Each year she's joined in the spring and fall by other volunteers, but throughout the rest of the year, it's a one-woman show.



to the party for a couple of years: "I get the feeling everyone loves planting annuals at City Hall because it symbolizes the ultimate Philadelphia garden, and it's nice to be part of that."

Tree Tenders

Before long there will be a Tree Tender peering out from behind every street tree in Philadelphia. Volunteers who discover they love trees also find an outlet at the Society. A nine-hour training course, Tree Tenders, covers the effects of urban stresses on trees, tree identification, planting pit care, pruning and planting; the training draws more interest each year. Two hundred retired school teachers, business executives, city workers, and artists from 35 neighborhood groups have graduated since Tree Tenders began in 1993. Evening continuing education programs in fundraising, grant writing, volunteer recruitment, organization building and advocacy are now offered to follow the training.

Tom Lederer, a retired Philadelphia Water Department employee, has made trees his mission in life since completing the Tree Tenders training. He transformed the sterile surroundings of the Moffet School in Philadelphia's Kensington South neighborhood into a shady spot with 21 trees and also helped get a student tree lab in the ground there. Tom's goal is to plant one tree for every native tree species in Pennsylvania. He's just one of the many Tree Tenders out to improve Philadelphia's urban forest. These Tree Tenders are serious: they've brought $80,000 in grants and other funding for tree plantings in Philadelphia over the past two years.

Ribbon of Gold gardeners

I have worked most closely with the volunteers who plant the Ribbons of Gold in Philadelphia's Fairmount and Spring Garden neighborhoods. They've planted *Coreopsis, Hemerocallis, Rudbeckia,* ornamental grasses and wildflower meadows and see that these plants continue to flourish. Almost 6,000 plants, 900 bulbs, 39 pounds of wildflower seed, 68 cubic yards of topsoil and 97 cubic yards of mulch created these "gardens."

Water, water, and more water — that's what plants in continuous 94°F heat require. The Eastern State Penitentiary's chief waterer often starts at 7 am. "I enjoy doing things that make the community where I live better," explains Dorene Martin, R.N. Pleasant and easygoing, Dorene first gardened when her father turned the back of their property into a huge vegetable plot. "We were forced labor for 100 tomato plants, 100 pepper plants," she says, "hoeing and watering." Will her son Tim, a lanky, redheaded 16-year-old, describe the times he joins his mother to water in the same way. They watered 40 hours in July and August last summer.

A 1991 effort to bring seven 10 ft. by 40 ft. Ribbons of Gold to three medians of Spring Garden Street was spearheaded by Charlie Thomson, former radio & TV editorial director, who now works in the Philadelphia school system. Charlie struggled with extreme temperatures and no rain for six weeks during the first growing season. "I've developed a whole new sensitivity to the amount of rainfall in the summer," he explains, "and I now look at the rain as a friend rather than a foe." An avid runner, he enjoys being outside and appreciates the physical nature of gardening. Charlie figures he's spent 80-100 hours watering over four seasons.

"If you take care of it — it shows," maintains Rosina Feldman, a no-nonsense gardener who farmed as a girl in Switzerland. She recently retired from fashion designing and now has more time to devote to her passion for growing things. "I like digging," she says, "and with gardening you can see results." Last year she made a green tomato jam from plants that mysteriously seeded themselves among the perennials and ornamental grasses. Rosina's energy and wonderfully cheerful nature inspire others to join her efforts. "I have terrific helpers — it's nice, it's sociable," she remarked to me. Rosina and her "helpers" maintain four planting beds in the 1900 block of Spring Garden Street.

Either in the teeming August heat or frigid January temperatures the Society's volunteers lend their expertise and demonstrate their eagerness to learn. They spend extra time in their day or squeeze in time they can't spare. While striving to make Philadelphia a better place to live, they receive a measure of personal satisfaction. In the end, they volunteer because they tried it, they like it. Why else would they do it?

•

Landscape architect Kathryn T. Newland, manager, Public Landscapes, Philadelphia Green, gardens in East Falls. She's seeing the plant world through new eyes these days —those of her baby daughter, Grace.

Volunteer Opportunities at the Pennsylvania Horticultural Society

- **Give your time at the Philadelphia Flower Show:**
 The Pennsylvania Horticultural Society's Philadelphia Flower Show depends on 2,500 volunteers to help create a dazzling Show each year. These volunteers organize, recruit, create, plant and stage exhibits in the Show's Competitive Classes. More than 400 people donate their time to staff the Garden Shop and the PHS Membership Booth and answer questions about membership in the Society. Volunteers also provide hospitality for judges, early morning tour guests and Society members. Even more volunteers will be needed in 1996 when the Flower Show moves to the new Pennsylvania Convention Center.
- **Assist at other Shows**:
 the Harvest Show, the Junior Flower Show.
- **Share your horticultural expertise**:
 answer questions at the information booth at Shows; conduct workshops; answer the Horticultural Hotline; be a judge for the City Gardens Contest.
- **Dig in the dirt**:
 public landscapes and community gardens.
- **Assist with administrative tasks**:
 Library, Cookbook marketing, mailings.
- **Help with membership activities and special events**:
 garden tours, book sales, plant dividend.
- **Cultivate children's activities**:
 Children's section of the Harvest Show, Junior Flower Show.

For additional information contact: Flossie Narducci, Pennsylvania Horticultural Society, 325 Walnut Street, Philadelphia, PA 19106. Phone (215) 625-8250.

Passing Time in the Garden

when we're not gardening...





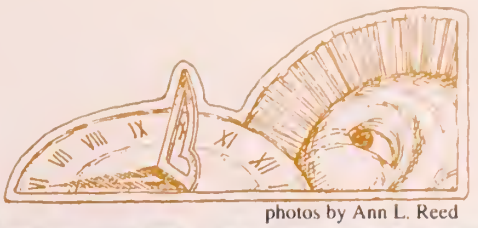
photo by Richard W. Brown from *Tasha Tudor's Garden*, Houghton Mifflin Co., Boston, Mass., 1995

The garden is also a sanctuary: we meditate, reflect, read, eat, play

"When I am alone the flowers are really seen; I can pay attention to them. They are felt as presences. Without them I would die . . . they change before my eyes. They live and die in a few days; they keep me closely in touch with process, with growth, and also with dying. I am floated on their moments."

Quote by author and poet May Sarton from *Journal of a Solitude*, W.W. Norton, N.Y., 1973





photos by Ann L. Reed



"Though I have only a tiny yard, I have given a place of honor to the grand Dutch crocuses, not only because I love them myself, but because I know few flowers are so attractive to children. I do not expect to see many flowers; I expect the children to pick them. For this reason I have planted them conveniently near the sidewalk. When children pick flowers, I do not like the word "steal" and the quickest possible route to hell, it has been said, is to growl at a child for picking crocuses . . . Now of course if the child gets into **Lilium langkongense** *or the irises, well, that is something else again, and a tub of boiling oil is recommended."*

Quote by the late Henry Mitchell from *The Essential Earthman,* Indiana University Press, Bloomington, Ill., 1981

continued

"When I'm painting I have to be alert because no matter how carefully I plan my composition, the painting takes on a life of its own, and it's important to flow with it. I try to do the same thing in my garden . . . The garden shouldn't look too planned, just as a painting shouldn't look contrived."

Quote by Penny Harris, "An Artist's Perspective," *Green Scene,* July, 1994

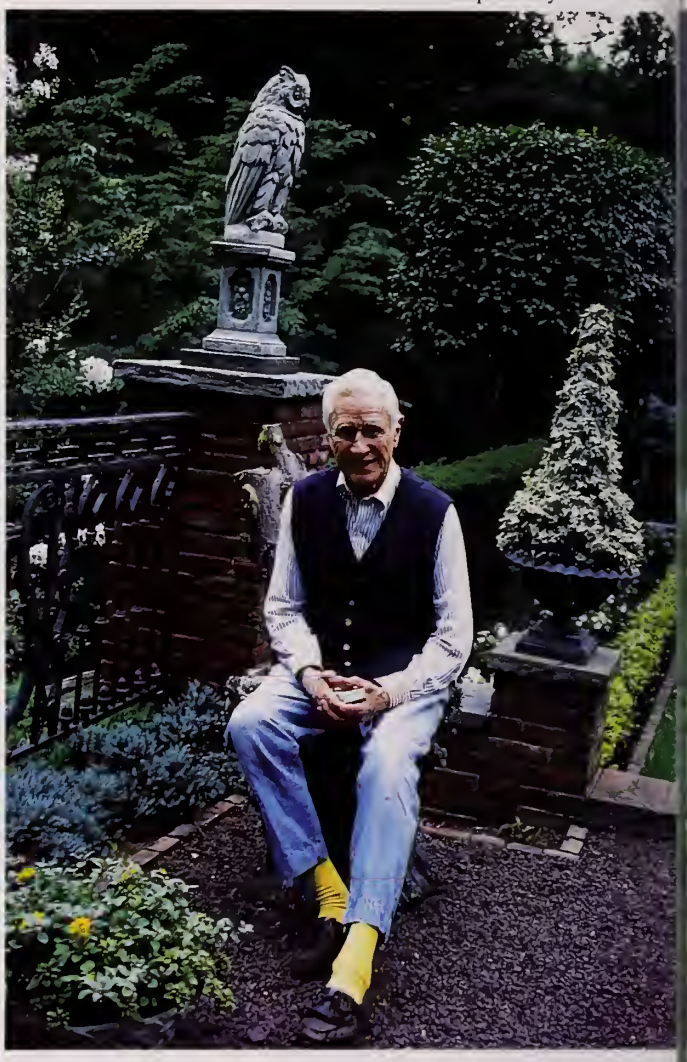
when we're not gardening...

photos by Ann L. Reed



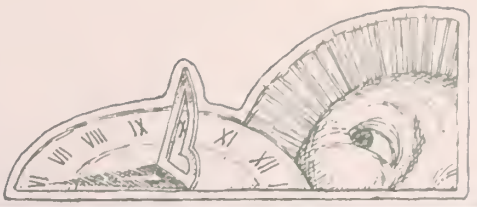
"I picked up a tattered copy of Alice Morse Earle's **Old Time Gardens.** *Because it was published in 1901, an "old time" itself, I thought it might be quaint and curious. It turned out to be about as quaint and curious as the Mozart Requiem or* **The Cherry Orchard,** *teaching the lesson that books on gardening, no less than musical and theatrical works, can be classics — not relics of the past, but fresh when discovered decades after their creator has gone to earth, and fresh on each new encounter."*

Quote by author Allen Lacy



"Gardening is a luxury occupation: an ornament, not a necessity of life. The farmer is not at all concerned with the eventual beauty of his corn as a feature in the landscape, though, indeed, he gets a certain satisfaction out of it as he leans against his gate on a summer evening, and sees his acres gently curving to the breeze. Still, beauty is not his primary aim; the gardener's is. Fortunate gardener, who may preoccupy himself solely with beauty in these difficult and ugly days! He is one of the few people left in this distressful world to carry on the tradition of elegance and charm . . . he must not be denied his rightful place. He deserves to share it, however humbly, with the painter and the poet.

Quote by British author Vita Sackville-West





"Let him eat peas, carrots, celery, turnips, lettuce, artichokes . . . with the warmth of the sun still in them and the taste of the earth all through them; eat them there in the open garden."

Quote by Angelo M. Pellegrini, *The Food Lover's Garden* (Albert A. Knopf, New York, 1970)



"The moving woods attended as she played."

With apologies to Joseph Addison "A Song for St. Cecilia's Day"

Thanks to Richard Bitner who provided the quotes used for *When We're Not Gardening.*

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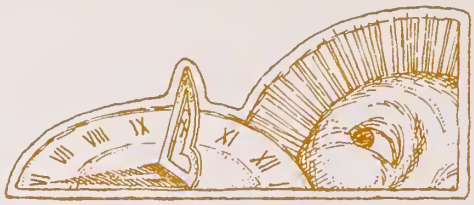
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Time in the Garden Heals

by Patricia Schrieber

In the early morning hours of March 4, 1989, after my car collided with another vehicle on Kelly Drive in Philadelphia, an ambulance rushed me to the hospital at the Medical College of Pennsylvania. I came through the long hours of surgery required to repair my neck and remember being taken to intensive care where they moved me as though I were a log. A week later, the doctors reconstructed my ankle. As my condition stabilized, I faced one of the biggest challenges of my life: I could not walk. I wore a confining collar that supported my neck and though I wanted to heal, I had no guarantee that I would.

Loving friends and family nurtured my hope for healing in different ways. Joanna Reed of Malvern knowing my passion for nature, offered her garden as a place to heal. Five weeks after the operation I was transported there by ambulance. It was early spring when I arrived. I wheeled my chair out onto Joanna's terrace garden as weather permitted, where I read, wrote and absorbed the sights and sounds of nature. The lushness of her garden created a sense of warm embrace. I experienced spring in a more intimate way than I ever had before: I watched birds build nests and raise their young; I followed the sequence of bloom in the colorful garden tapestry Joanna created. Some days I'd struggle with myself, fearful, wondering if I would ever heal. Then I'd hear birdsong, notice the nodding heads of flowers and the pain and doubts would diminish.

I spent spring and early summer within the walls of Joanna's terrace garden. I watered and pruned the containers of rosemary, bay, Natal plum and begonias scattered around the terrace, accessible to me in the wheelchair. I paced myself by breathing deeply, moving slowly and stopping before becoming totally fatigued. Joanna would come in after a 12-hour day, full of light from cultivating her garden. She would describe the day's project in great detail. Joanna's garden work inspired me to become strong enough to get my hands back in the earth as a celebration of my rebirth.

I cheered when after four months the doctor told me I could finally put weight on my ankle. I began to explore the parts of Joanna's garden that had been beyond the reach of my wheelchair. The first few days I walked with crutches to the bottom of the driveway and sat on a wall, taking in a view. Beyond me stretched what Joanna called the Old Vegetable Garden, filled with herbs, perennials, and fruit trees. I had pictured this garden in my mind so many times over the previous months that I could hardly believe I was there under my own power. I set my next goal as the bench at the far end of that garden. Although I took several more days before actually reaching that spot, it was well worth the wait. I would sit on the bench in the sunshine, smelling the red cedar tree nearby. I would watch goldfinches bounce on tall sunflower stalks as they sampled the seeds. I would gaze up at the meadow, dreaming of when I would be strong enough to walk to the top of that hill. It actually took another year, on a return visit, before I was ready to make that climb.

I am a born-again gardener. Gardening sustains me, even in those moments when physical pain overtakes me. Sometimes the pain is there to guide me to a slower pace.

I left Joanna's to live on my own again just before Halloween, when fertility goes underground for a time of retreat and renewal. I saw the promise of my growing stamina held within the seeds scattered on the ground. I gained strength by swimming and walking, and in winter I went back to work, using a cane, but no longer needing a collar to protect my neck.

Although I was living in a Center City apartment with no garden of my own, I found a way to keep to gardening as my healing path. I joined The Friends of the Azalea Garden on their monthly work days in that Fairmount Park garden. Each time I gardened there, my strength increased. I even adapted a new digging technique that protected my right ankle and reduced the risk of injury. Instead of thrusting my right foot onto the top of the shovel head as had been my custom, I found I could apply pressure with that same foot, while I anchored myself with my left foot. I would move the handle of the shovel from side to side which, when combined with the continuous pressure from my right foot, pushed the shovel point deeper into the ground.

The following spring my new partner, Pat Valentine, welcomed me into his country garden in Lancaster County. I spent my time transplanting, pruning, and weeding. When I felt really tired, I'd lie on the ground, waiting for a new burst of energy. By the next spring, Pat and I had cleared away what had been the burn pile so that I could plant a vegetable garden, with raised beds narrow enough for me to comfortably reach across from the paths. I stretched into the garden work, aware of how much I had healed in the previous two years. I was ecstatic, living the dream of healing I had planted within myself while at Joanna's.

I am a born-again gardener. Gardening sustains me, even in those moments when physical pain overtakes me. Sometimes the pain is there to guide me to a slower pace. Sometimes it comes as a forecast of rain. I've gardened on crisp fall mornings with a second crop of vegetables sprouting and an extravagant hyacinth bean vine lounging on the porch railing. I've explored the garden in the moonlight, transfixed by the glow of white flowers and silver leaves. I've weeded in the heat of summer, hoping the wind chimes would tell me a cooling breeze was on its way. I've learned to luxuriate in the hammock rather than rush on to the next gardening task. I've studied the windfall ash sprouting from its stump, a symbol of my growth over the past six years.

These days I celebrate change in the garden and when the growing season ends, I know it's time for the earth to rest and for me to go within. I believe in the promise of spring and rebirth, for as the old saying goes, time is the tincture that heals.

•

Patricia Schrieber, education manager for Philadelphia Green, recently celebrated 17 years on the Pennsylvania Horticultural Society staff. Patricia describes her adaptive digging technique in the book entitled *The Enabling Garden* by Gene Rothert, published by Taylor Publishing Company in 1994.



illustration by Signe Sundberg Hall

INDEX

Index to Volume 23, September 1994 through July 1995 (listing shows issue date and page number).

TITLES

(and cross index by key word)

A-B

Aesculus pavia: 1995 Gold Medal Plant Awards — Hesselein, ... Jan., 4

Ageing: Gardening for Forever — Brinton, ... Nov., 26

Answer the Silent Voice of Hunger — Goldstein May, 13

Arranging: Divine Inspiration, Flowers Lift the Spirit at Worship — Lehman, ... Mar., 21

Art, Garden: Sculpture Created from Recycled Metal — Simpson, ... Sept., 27

Art That Does Double Duty, Garden: Trellises — Alderfer, ... Nov., 15

Back to School for Horticulture — Ball, ... Sept., 11

Barnes Arboretum Horticultural Program: Back to School for Horticulture — Ball, ... Sept., 11

Birds: Hummertime — Brunet, ... May, 18

Bitten and Smitten by the Butterfly Bug — Young, ... May, 29

Black Gold: Large Scale Composting — Merritt, ... Nov., 30

Books About Victorian Christmases and Gardening — Mills, ... Nov., 10

Books That Change the Way We Garden: Letter to the Editor — Peplowski, ... Sept., 33

Border, Mixed: Choose Shrubs for Fall Color in the — Bitner, . . . Sept., 19

Brothers: A Rich Harvest of Eggplants and Peppers — Clarke, ... Mar., 8

Bulbs: Caladiums for a Tropical Touch — Mills, ... Jan., 29

Butterflies of Delmarva: Bitten and Smitten by the Butterfly Bug — Young, ... May, 29

Butterfly Bug, Bitten and Smitten by the — Young, ... May, 29

C

Caladiums for a Tropical Touch — Mills, ... Jan., 29

Carousel House: A Garden for the Challenged — Noble, ... May, 24

Challenged, A Garden for the — Noble, ... May, 24

Charlie Brown Christmas Trees; Art Nouveau Trellises; and Three Generations of One Family Create for this Issue of *Green Scene*: Editorial — Byrne, ... Nov., 3

Chinese Tree Peonies — Aleksinas, ... May, 9

Choose Shrubs for Fall Color in the Mixed Border — Bitner, ... Sept., 19

Christmas, A Victorian — Mills, ... Nov., 8

Christmas Ornament: PHS, the Poinsettia and a New Holiday Collectible — Lindemann, ... Nov., 25

Christmas Tree: A New Yorker Searches for the Most Imperfect Perfect — Kerwin, ... Nov., 4

Clerodendrum trichotomum: Growing Interests — Brinton, ... Jan., 31

Color in the Mixed Border: Choose Shrubs for Fall — Bitner, ... Sept., 19

Color: Silver Shines in the Garden — Chandoha, ... Sept., 22

Community Gardens: Answer the Silent Voice of Hunger — Goldstein, ... May, 13

Composting, Large Scale: Black Gold — Merritt, ... Nov., 30

Computer: Landscape Design Software, A New Tool for the Home Garden Designer — Daly, ... Mar., 13

Cooking, Herb Shortcuts: Easy Ways to Save Favorite Herbs for Winter — Cunningham, ... Sept., 16

Cooking: Herb Shortcuts, Caution to Readers — Staff, ... Nov., 33

Coppens, William: A Garden for the Challenged — Noble, ... May, 24

Corn At Its Sweetest — Noble, ... Jan, 20

Cricket Hill Nurseries: Chinese Tree Peonies — Aleksinas, ... May, 9

Curry plant, dwarf: How to Grow Three Harder-Than-Average Plants for the Phila. Flower Show — Rogers, ... Mar., 26

D-E

Deconstructing the Pool — Hough, ... Jan., 26

Deer Resistance, Design for: Combining Flora with Fauna — Chorba, ... Mar., 17

Delaware Nature Society: Bitten and Smitten by the Butterfly Bug — Young, ... May, 29

Design for Deer Resistance: Combining Flora with Fauna — Chorba, ... Mar., 17

Deutzia gracilis 'Nikko': How to Grow Three Harder-Than-Average Plants for the Phila. Flower Show — Rogers, ... Mar., 27

Divine Inspiration: Flowers Lift the Spirit at Worship — Lehman, ... Mar., 21

Dry Walls and Perennials Part I: A Heavenly Combination — Duckett, ... Sept., 4; Part II: How to Build... and Plant — Duckett, ... Sept., 7

Editorial: Networks That Connect Us — Byrne, ... Sept., 3; The Charlie Brown Christmas Trees; Art Nouveau Trellises; and Three Generations of One Family Create for this Issue of *Green Scene* — Byrne, ... Nov., 3; PHS Members Win Top GWAA Awards, Perennials Galore, French Students Garden in Bucks County — Byrne, ... Jan., 3; Time in the Garden — Byrne, ... Jul., 3

Education: Back to School for Horticulture — Ball, ... Sept., 11

Eggplants and Peppers: A Rich Harvest of — Clarke, ... Mar., 8

Essay: Garden Passion — Hengst, ... Nov., 22; Gardening for Forever — Brinton, ... Nov., 26

F-G

Flavoring: Vanilla, Our Most Popular — Zimmerman, ... Nov., 28

Flower Show, Philadelphia: How to Grow Three Harder-Than-Average Plants for the — Rogers, ... Mar., 25

Flower Show, Philadelphia: The Mask, A Pressed Plant Winner at the 1994 — Vassalluzzo, ... Mar., 28

French Exchange Students: La Grande Histoire — Platt, ... Jan., 17

Friendship Garden, Planting a — Steinmetz, ... May, 21

Furman, David and Kasha: Chinese Tree Peonies — Aleksinas, ... May, 9

Furness, Fairman: The Garden Artistry of Upper Bank — Darke, ... Mar., 3

Garden Art That Does Double Duty: Trellises — Alderfer, ... Nov., 15

Garden Art: Sculpture Created from Recycled Metal — Simpson, ... Sept., 27

Garden Artistry of Upper Bank — Darke, ... Mar., 3

Garden for the Challenged, A — Noble, ... May, 24

Garden Passion — Hengst, ... Nov., 22

Garden Tells Time, The — Lehman, ... Jul., 10

Gardening for Forever — Brinton, . . . Nov., 26

Geranium, wormwood-scented: How to Grow Three Harder-Than-Average Plants for the Phila. Flower Show — Rogers, ... Mar., 25

Gold Medal Plant Awards, 1995 — Hesselein, ... Jan., 4

Grande Histoire, La — Platt, ... Jan., 17

Growing Interests: *Clerodendrum trichotomum* — Brinton, ... Jan., 31; *Mertensia virginica* — Mackey, . . . Jan., 32

H-L

Halesia diptera magniflora: 1995 Gold Medal Plant Awards — Hesselein, ... Jan., 5

Harvest Show: Herb Shortcuts, Easy Ways to Save Favorite Herbs for Winter Cooking — Cunningham, ... Sept., 16; Caution to Readers — Staff, ... Nov., 33

Heals, Time in the Garden — Schrieber, ... Jul., 38

Helichrysum angustifolium 'Nanam': How to Grow Three Harder-Than-Average Plants for the Phila. Flower Show — Rogers, ... Mar., 26

Septacodium miconioides: 1995 Gold Medal Plant Awards — Hesselein, ... Jan., 6

Herb Shortcuts: Easy Ways to Save Favorite Herbs for Winter Cooking — Cunningham, ... Sept., 16; Caution to Readers — Staff, ... Nov. 33

Higgins, George: The Power of One — Mills, ... Sept., 25

Holiday Collectible: PHS, the Poinsettia and a — Lindemann, ... Nov., 25

Horses to Herbs, From — Wolfe, ... May, 3

Horticultural Therapy: A Garden for the Challenged — Noble, ... May, 24

How to Grow Three Harder-Than-Average Plants for the Phila. Flower Show — Rogers, ... Mar., 25

Howe, Margery: From Horses to Herbs — Wolfe, ... May, 3

Hummertime (Humming Birds) — Brunet, ... May, 18

Hunger, Answer the Silent Voice — Goldstein, ... May, 13

Ilex verticillata 'Winter Red': 1995 Gold Medal Plant Awards — Hesselein, ... Jan., 7

Indoor Microclimates — Campbell, ... Nov., 11

Invaders in the Garden (Invasive Plants) — Mackey, ... Nov., 18

Invitation to Plant Societies — Staff, ... Sept., 33

Junk Changes to Treasure in a Seashore Garden — Coyle, ... May, 32

Landscape Design Software: A New Tool for the Home Garden Designer — Daly, ... Mar., 13

Landscape Design: Site Design after the Fact — Corson, ... Sept., 30

Letter to the Editor: Books That Change the Way We Garden — Peplowski, ... Sept., 33; The Plant World in Our Daily Language — Lewis, ... Jan., 33; Vanilla Dates — Tomlinson, ... Jan., 33; Author's Response to Letter to the Editor — Zimmerman, ... Jan., 33

Lighty, Richard W.: Time and Talent, A Recipe for an Uncommon Garden — Swan, ... Jul., 24

Longwood Gardens Certificate Program: Back to School for Horticulture — Ball, ... Sept., 11

M-O

Mask, The: A Pressed Plant Winner at the 1994 Phila. Flower Show — Vassalluzzo, ... Mar., 28

Mertensia virginica: Growing Interests — Mackey, ... Jan., 32

Microclimates, Indoor — Campbell, ... Nov., 11

Networks That Connect Us: Editorial — Byrne, ... Sept., 3

New Yorker Searches for the Most Imperfect Perfect Christmas Tree — Kerwin, ... Nov., 4

Organic Gardening: From Horses to Herbs — Wolfe, ... May, 3

P-R

Pelargonium abrotanifolium: How to Grow Three Harder-Than-Average Plants for the Phila. Flower Show — Rogers, ... Mar., 25

Peonies, Chinese Tree — Aleksinas, ... May, 9

Peppers and Eggplants: A Rich Harvest of — Clarke, ... Mar., 8

Perennial Plant Association, The — Monroe, ... Jan., 10

Perennials, Dry Walls and, Part I: A Heavenly Combination — Duckett, ... Sept., 4; Part II: How to Build... and Plant — Duckett, ... Sept., 7

Perennials, Promising — Monroe, . . . Jan., 13

Perennials that Merit Attention — Taylor, ... Jan., 9

Pest Control: Design for Deer Resistance, Combining Flora with Fauna — Chorba, ... Mar., 17

Philabundance: Answer the Silent Voice of Hunger — Goldstein, .. May, 13
PHS Members Win Top GWAA Awards, Perennials Galore, French Students Garden in Bucks County: Editorial — Byrne, ... Jan., 3
PHS, the Poinsettia and a New Holiday Collectible — Lindemann, ... Nov., 25
Plant World in Our Daily Language: Letter to the Editor — Lewis, ... Jan., 33
Planting a Friendship Garden — Steinmetz, ... May, 21
Pool, Deconstructing the — Hough, ... Jan., 26
Power of One, The — Mills, ... Sept., 25
Pressed Plants: The Mask, A Pressed Plant Winner at the 1994 Phila. Flower Show — Vassalluzzo, ... Mar., 28
Plant Societies; Meetings 1995 — Lukens, ... Mar., 31
Promising Perennials — Monroe, ... Jan., 13
Putting Time into the Garden — Reed, ... Jul., 4

R-S

Recycled Metal: Garden Art, Sculpture Created from — Simpson, ... Sept., 27
Recycling: Junk Changes to Treasure in a Seashore Garden — Coyle, ... May, 32
Reed, Joanna: Invaders in the Garden — Mackey, ... Nov., 18
Rich Harvest of Eggplants and Peppers — Clarke, ... Mar., 8
Rockwood Museum: A Victorian Christmas — Mills, ... Nov., 8
Saint Thomas' Episcopal Church: Divine Inspiration, Flowers Lift the Spirit at Worship — Lehman, ... Mar., 21
Scandone, George: Deconstructing the Pool — Hough, ... Jan., 26
Sculpture Created from Recycled Metal: Garden Art — Simpson, ... Sept., 27
Seashore Garden, Junk Changes to Treasure in a — Coyle, ... May, 32
Share the Harvest: Answer the Silent Voice of — Goldstein, ... May, 13
Shrubs for Fall Color in the Mixed Border: Choose — Bitner, ... Sept., 19
Silver Shines in the Garden — Chandoha, ... Sept., 22
Site Design after the Fact — Corson, ... Sept., 30
Software, Landscape Design: A New Tool for the Home Garden Designer — Daly, ... Mar., 13
Stealing Time to Garden — McCabe, ... Jul., 21

T-Z

Take Time to Save Time — Chandoha, ... Jul., 16
Taylor Packing: Black Gold, Large Scale Composting — Merritt, ... Nov., 30
Thompson, Sara and Wirt: The Garden Artistry of Upper Bank — Darke, ... Mar., 3
Time and Talent: A Recipe for an Uncommon Garden — Swan, ... Jul., 24
Time in Gardens Not Their Own: Volunteers — Newland, ... Jul., 29
Time in the Garden Heals — Schrieber, ... Jul., 38
Time in the Garden: Editorial — Byrne, ... Jul., 3
Time into the Garden, Putting — Reed, ... Jul., 4
Time, The Garden Tells — Lehman, ... Jul., 10
Time to Garden, Stealing — McCabe, ... Jul., 21
Time to Save Time, Take — Chandoha, ... Jul., 16
Tree Peonies, Chinese — Aleksinas, ... May, 9
Tree Rescue (Elm): The Power of One — Mills, ... Sept., 25
Trellies: Garden Art That Does Double Duty — Alderfer, ... Nov., 15
Upper Bank, The Garden Artistry of — Darke, ... Mar., 3
Vanilla, Our Most Popular Flavor — Zimmerman, ... Nov. 28
See also Letters to the Editor
Vegetables: Corn At Its Sweetest — Noble, ... Jan., 20
Victorian Christmas, A — Mills, ... Nov., 8
Volunteers: Giving Time in Gardens Not Their Own — Newland, ... Jul., 29
Walls, Dry, and Perennials Part I: A Heavenly Combination — Duckett, ... Sept., 4; Part II: How to Build... and Plant — Duckett, ... Sept., 7
Westtown: From Horses to Herbs — Wolfe, ... May, 3
Woodbury, Dr. Elton: Bitten and Smitten by the Butterfly Bug — Young, ... May, 29

AUTHORS

A-B

Alderfer, Douglas — Trellises: Garden Art That Does Double Duty Nov., 15
Aleksinas, Debra A. — Chinese Tree Peonies May, 9
Ball, Liz — Back to School for Horticulture Sept., 11
Bitner, Richard L. — Choose Shrubs for Fall Color in the Mixed Border Sept., 19
Brinton, Toni — Gardening for Forever Nov., 26; Growing Interests: *Clerodendrum trichotomum* *Jan., 31*
Brunet, Helen Tower — Hummertime May, 18
Byrne, Jean — Editorial: Networks That Connect Us Sept., 3; Editorial: The Charlie Brown Christmas Trees; Art Nouveau Trellises; and Three Generations of One Family Create for this Issue of *Green Scene* Nov., 3; Editorial: PHS Members Win Top GWAA Awards, Perennials Galore, French Students Garden in Bucks County ... Jan., 3; Editorial: Time in the Garden: Editorial Jul., 3

C-F

Campbell, Duane — Indoor Microclimates Nov., 11
Chandoha, Walter — Silver Shines in the Garden .. Sept., 22; Take Time to Save Time Jul., 16
Chorba, Jeffrey R. — Design for Deer Resistance: Combining Flora with Fauna Mar., 17
Clarke, Stephen — Rich Harvest of Eggplants and Peppers Mar., 8
Corson, Linda — Site Design after the Fact Sept., 30
Coyle, Gretchen F — Junk Changes to Treasure in a Seashore Garden ... May, 32
Cunningham, Anne S — Herb Shortcuts: Easy Ways to Save Favorite Herbs for Winter Cooking Sept., 16
Daly, Peter M. — Landscape Design Software: A New Tool for the Home Garden Designer Mar., 13
Darke, Rick — Garden Artistry of Upper Bank Mar., 3
Duckett, Kath — Dry Walls and Perennials Part I: A Heavenly Combination .. Sept., 4 Part II, How to Build ... and Plant Sept., 7

G-K

Goldstein, Libby — Answer the Silent Voice of Hunger May, 13
Hengst, William Guthrie — Garden Passion Nov., 22
Hesselein, Richard — 1995 Gold Medal Plant Awards Jan., 4
Hough, George — Deconstructing the Pool Jan., 26
Kerwin, Joe — New Yorker Searches for the Most Imperfect Perfect Christmas Tree Nov., 4

L-M

Lehman, Olivia — Divine Inspiration: Flowers Lift the Spirit at Worship .. Mar., 21; The Garden Tells Time Jul., 10
Lewis, Betty C. — Letter to the Editor: The Plant World in Our Daily Language Jan., 33
Lindemann, Ed — Pennsylvania Horticultural Society, The Poinsettia and a New Holiday Collectible .. Nov., 25
Lukens, Carol — Plant Societies' Meetings 1995 Mar., 31
Mackey, Betty Barr — Invaders in the Garden Nov., 18; Growing Interests: *Mertensia virginica* Jan., 32
McCabe, Sally — Stealing Time to Garden Jul., 21
Merritt, Patricia — Black Gold Large Scale Composting Nov., 30
Mills, Kathleen A — The Power of One, .. Sept., 25, Victorian Christmas, A .. Nov., 8; Caladiums for a Tropical Touch Jan., 29
Monroe, Cheryl Lee — Promising Perennials Jan., 13

N-S

Newland, Kathryn — Volunteers: Giving Time in Gardens Not Their Own ... Jul., 29
Noble, Dorothy — Corn At Its Sweetest Jan., 21, Garden for the Challenged, A May, 24
Peplowski, Claire — Letter to the Editor: Books That Change the Way We Garden Sept., 33
Platt, Benjamin B — Grande Histoire, La Jan., 17
Reed, Joanna — Putting Time into the Garden Jul., 4
Rogers, Ray — How to Grow Three Harder-Than-Average Plants for the Phila Flower Show Mar., 25
Schrieber, Patricia — Time in the Garden Heals Jul., 38
Simpson, Judith — Garden Art, Sculpture Created from Recycled Metal Sept., 27
Steinmetz, Thea — Planting a Friendship Garden May, 21
Swan, John — Time and Talent: A Recipe for an Uncommon Garden Jul., 24

T-Z

Taylor, Patricia A. — Perennials that Merit Attention Jan., 9
Tomlinson, Wm Michael — Letter to the Editor: Vanilla Dates Jan., 33
Vassalluzzo, Rosemarie — The Mask, A Pressed Plant Winner at the 1994 Phila. Flower Show Mar., 28
Wolfe, Mary Lou — Horses to Herbs, From May, 3
Young, Linda J. — Bitten and Smitten by the Butterfly Bug May, 29
Zimmerman, L. Wilbur — Vanilla, Our Most Popular Flavor Nov., 28



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